

GRADED EXERCISES

— IN TWO —
SIMPLE RULES

— OF —
ARITHMETIC

— FOR —
FIRST AND SECOND CLASSES OF THE
PUBLIC SCHOOLS OF ONTARIO

IMPROVED ADDITION AND DIVISION TABLES

BY GEORGE MOIR,

PRINCIPAL ST. MARY'S PUBLIC SCHOOLS.

Entered according to Act of Parliament in the year
1884, in the Office of the Minister of Agriculture.

ST. MARYS:

Printed at the Angus Steam Printing Office.

1884

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HOW TO TEACH ADDITION.

1. Show how to add by tens thus, 10, 20, 30, 40, etc.; 15, 25, 35, 45, etc.; 19, 29, 39, 49, etc. The extension columns can be used with advantage to show this. Direct attention to the fact that a number increased by 10 never changes the right hand figure.

2. Teach the left hand column of the Addition Table from top to bottom, thus, 1 and 1 are 2; 2 and 2 are 4; 3 and 3 are 6, etc.

3. Ask the pupil how many 9 is less than 10; then show that if 17 and 10 are 27, 17 and 9 must be 26 or 1 less than 27, because 9 is 1 less than 10. Show that when 9 is added to any number the right hand figure is DECREASED by one while the figure towards the left is INCREASED by one, with the exception of such numbers as 9 and 10; 9 and 20, etc., which will present little difficulty. In counting by 9s, say up to 90, thus, 9, 18, 27, 36, 45, etc., it will be interesting to point out that the right hand figures are 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, while the left hand figures are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

Let the teacher ask (pointing to figures in table) How many are 4 and 4? Pupil 8. T., 8 and 8? P., 16. T. (pointing to extension columns) 16 and 6 (no answer) T, How many are 6 and 6? P, 12 T, What is the right hand figure of 12? P, 2 T, Then 16 and 6 are 22. Again: T, 26 and 6? Pupil (not sure yet) T, How many are 6 and 6? P, 12 T, Then if 6 and 6 are 12 and 16 and 6 are 22, how many are 26 and 6? The pupil sees it and says 32. Again: T, 8 and 8? P, 16 T, 28 and 8? P, 36 T, 7 and 7? P, 14 T, 47 and 7? P, 54, etc. Show that in all cases the right hand figure in 28 and 8 is the same as in 8 and 8; in 7 and 7 the same as in 47 and 7, and so on.

Having mastered this the next step is 7 and 7? P, 14 T, 7 and 8? P, 15 T, What is the right hand figure of 15? P, 5 T, Then how many are 17 and 8? You said 7 and 8 were 15 and that the right hand figure was 5; then 17 and 8 must have a 5 for a right hand figure. It cannot be 15 for that is LESS than 17, and it cannot be 35 for 17 and 10 would only make 27, and 8 is less than 10, therefore you see it must be 25. Add 8 to each of the numbers ending in 7 in the extension column. Proceed similarly with any other number.

4. For review exercises run over any, or all, of the numbers in the Table downwards, upwards, forwards, backwards. Then add the number to any number in the extension columns as quickly as it is named or pointed out.

5. Learn to count rapidly by adding any number continuously to itself or to any number less than itself. Thus with 3: 1, 4, 7, 10, etc.; 2, 5, 8, 11, etc.; 3, 6, 9, 12, etc.

EXERCISE I.

This exercise and the next two are specially arranged, and should be worked, at least, three times by the pupil before he proceeds to the others.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)	(9.)	(10.)	(11.)	(12.)
2	4	6	8	3	4	5	2	4	7	9	6
1	2	3	4	1	1	1	6	7	3	5	1
1	2	3	4	2	3	4	6	7	4	4	5
(13.)	(14.)	(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)	(22.)	(23.)	(24.)
4	8	2	6	4	8	2	6	8	5	2	4
2	4	6	3	7	9	6	8	9	5	6	7
1	2	3	1	3	2	8	9	4	3	2	2
1	2	3	2	4	7	8	9	5	2	4	5
(25.)	(26.)	(27.)	(28.)	(29.)	(30.)	(31.)	(32.)	(33.)	(34.)	(35.)	(36.)
8	6	2	8	4	7	9	4	6	8	2	7
4	8	6	4	2	3	1	7	8	9	6	3
2	4	3	7	6	7	9	3	9	1	8	4
1	2	2	3	2	3	1	2	5	2	9	1
1	2	1	4	4	4	8	2	4	6	9	9
(37.)	(38.)	(39.)	(40.)	(41.)	(42.)	(43.)	(44.)	(45.)	(46.)	(47.)	(48.)
6	2	8	4	2	9	2	8	6	4	6	8
8	6	4	7	6	9	6	4	8	7	8	9
4	8	2	3	8	9	8	7	4	3	9	1
2	4	6	7	9	9	9	3	2	4	1	9
1	2	3	3	4	9	1	2	6	1	2	5
1	2	3	4	5	9	8	2	6	9	6	4
(49.)	(50.)	(51.)	(52.)	(53.)	(54.)	(55.)	(56.)	(57.)	(58.)	(59.)	(60.)
4	8	6	8	2	4	8	4	2	8	6	3
2	4	8	4	6	2	4	7	6	4	8	3
6	2	4	2	8	6	2	3	8	2	4	5
8	6	7	6	4	8	6	7	4	6	2	2
4	8	3	8	2	4	8	3	7	8	6	0
2	4	7	4	6	2	9	7	9	4	3	5
1	2	3	7	2	6	1	2	2	1	9	2
1	2	4	7	4	6	8	5	6	3	4	3

EXERCISE II.

('Teach carrying).

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)	(9.)	(10.)
48	84	47	92	98	62	24	96	86	12
24	27	23	56	14	86	67	36	98	66
62	83	67	78	97	28	39	85	52	83
31	92	83	92	12	81	62	92	78	42
21	82	64	66	65	67	56	73	48	31
(11.)	(12.)	(13.)	(14.)	(15.)	(16.)	(17.)	(18.)	(19.)	(20.)
82	87	86	72	65	84	67	93	78	87
96	91	28	58	87	72	53	36	44	92
43	18	84	37	93	26	14	88	12	39
56	92	97	65	65	98	71	94	66	81
87	76	67	46	20	78	59	74	46	68
(21.)	(22.)	(23.)	(24.)	(25.)	(26.)	(27.)	(28.)	(29.)	(30.)
64	58	42	76	63	64	94	73	67	96
32	39	76	38	78	87	12	31	83	18
36	61	18	29	12	41	26	26	42	49
51	34	89	62	83	78	83	68	76	74
45	14	59	37	73	58	73	48	56	45
(31.)	(32.)	(33.)	(34.)	(35.)	(36.)	(37.)	(38.)	(39.)	(40.)
57	85	48	54	45	84	65	26	32	13
51	45	24	22	72	97	81	68	16	81
28	72	64	36	73	37	47	84	28	42
49	34	31	53	55	85	73	97	59	75
19	24	19	43	35	65	54	67	29	65
(41.)	(42.)	(43.)	(44.)	(45.)	(46.)	(47.)	(48.)	(49.)	(50.)
23	42	24	72	93	79	57	95	59	67
84	28	62	16	57	35	43	24	75	93
45	64	86	88	78	67	76	67	48	27
72	87	98	49	94	89	58	95	15	89
63	67	78	19	65	58	68	62	42	56
(51.)	(52.)	(53.)	(54.)	(55.)	(56.)	(57.)	(58.)	(59.)	(60.)
83	59	68	25	49	93	56	97	48	87
26	65	89	67	28	29	68	51	39	99
85	87	98	89	69	85	84	38	54	94
97	71	95	92	82	47	97	64	75	57
78	96	76	76	57	17	67	44	60	27

EXERCISE III.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)
856	962	698	824	894	796	587	249
488	186	814	267	917	836	398	625
419	428	997	839	528	285	659	867
587	781	512	962	784	892	873	983
252	467	265	756	565	573	546	764
(9.)	(10.)	(11.)	(12.)	(13.)	(14.)	(15.)	(16.)
648	985	925	876	975	873	875	373
874	497	167	947	492	586	947	767
237	839	439	368	723	739	264	839
873	983	862	984	985	984	896	957
654	565	456	465	674	653	567	761
(17.)	(18.)	(19.)	(20.)	(21.)	(22.)	(23.)	(24.)
793	423	265	548	796	346	376	864
357	284	681	224	118	128	638	932
678	645	847	364	849	664	829	136
894	872	973	531	974	831	462	451
565	663	654	419	745	713	237	245
(25.)	(26.)	(27.)	(28.)	(29.)	(30.)	(31.)	(32.)
896	423	382	568	287	596	596	367
418	251	696	289	692	218	218	653
292	636	218	341	839	649	649	814
673	362	793	572	481	373	373	471
453	154	475	256	168	146	146	259
(33.)	(34.)	(35.)	(36.)	(37.)	(38.)	(39.)	(40.)
987	982	589	765	583	685	642	572
591	518	321	454	946	897	875	758
318	379	689	371	875	471	237	337
692	654	892	592	498	768	868	465
376	435	576	287	167	439	549	846
(41.)	(42.)	(43.)	(44.)	(45.)	(46.)	(47.)	(48.)
783	585	482	758	489	549	825	783
826	657	396	139	297	728	967	826
985	489	543	862	618	969	589	285
597	695	756	489	195	582	792	897
278	264	587	158	264	257	476	578

EXERCISE IV.

(1.) 121	(2.) 322	(3.) 222	(4.) 333	(5.) 145	(6.) 455	(7.) 261	(8.) 452
212	111	131	131	211	221	412	121
321	422	412	112	321	101	123	213
(9.) 123	(10.) 412	(11.) 666	(12.) 421	(13.) 211	(14.) 147	(15.) 282	(16.) 272
234	223	123	113	322	421	203	115
423	234	210	132	223	210	512	401
(17.) 513	(18.) 137	(19.) 528	(20.) 122	(21.) 402	(22.) 150	(23.) 344	(24.) 712
106	521	210	331	356	423	211	143
260	211	241	444	101	114	321	121
(25.) 351	(26.) 623	(27.) 542	(28.) 333	(29.) 666	(30.) 222	(31.) 111	(32.) 455
124	142	213	212	112	411	670	412
311	104	131	131	210	123	118	120
(33.) 325	(34.) 213	(35.) 431	(36.) 240	(37.) 231	(38.) 344	(39.) 344	(40.) 245
253	221	123	142	243	211	333	341
410	412	221	301	623	432	112	213
(41.) 333	(42.) 444	(43.) 777	(44.) 788	(45.) 212	(46.) 654	(47.) 456	(48.) 432
555	102	100	101	123	121	121	221
101	231	111	110	324	102	211	213
(49.) 421	(50.) 341	(51.) 180	(52.) 221	(53.) 334	(54.) 402	(55.) 211	(56.) 342
217	127	211	444	411	171	444	211
210	121	408	121	120	212	211	141
(57.) 116	(58.) 224	(59.) 314	(60.) 411	(61.) 124	(62.) 212	(63.) 127	(64.) 444
412	421	241	165	612	131	210	212
410	140	112	201	111	214	410	141

EXERCISE V.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)
641	724	842	921	541	414	546	724
214	431	602	121	814	442	521	512
812	613	451	614	213	741	501	541
(9.)	(10.)	(11.)	(12.)	(13.)	(14.)	(15.)	(16.)
421	632	721	812	942	714	612	412
443	616	722	814	624	882	361	545
424	611	714	842	911	603	414	732
(17.)	(18.)	(19.)	(20.)	(21.)	(22.)	(23.)	(24.)
721	724	612	941	813	411	624	402
345	641	733	114	722	320	712	840
722	834	922	723	612	756	613	954
(25.)	(26.)	(27.)	(28.)	(29.)	(30.)	(31.)	(32.)
922	632	841	924	411	222	312	624
833	542	224	131	577	932	423	731
721	413	912	521	310	824	741	812
(33.)	(34.)	(35.)	(36.)	(37.)	(38.)	(39.)	(40.)
123	221	432	532	621	322	723	802
232	331	513	612	834	532	832	920
923	912	921	943	913	934	910	945
(41.)	(42.)	(43.)	(44.)	(45.)	(46.)	(47.)	(48.)
145	232	334	402	520	620	704	824
221	314	421	543	577	712	823	810
832	821	832	852	810	820	831	805
(49.)	(50.)	(51.)	(52.)	(53.)	(54.)	(55.)	(56.)
114	224	304	413	526	612	732	624
262	331	471	532	601	732	722	141
711	703	724	721	760	733	744	702
(57.)	(58.)	(59.)	(60.)	(61.)	(62.)	(63.)	(64.)
142	212	344	431	512	614	611	633
221	332	532	510	632	941	722	822
604	621	612	624	612	622	604	655

EXERCISE VI.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)
123	234	345	456	567	678	789	890
458	333	222	444	146	823	154	456
631	865	986	732	641	281	451	634

(9.)	(10.)	(11.)	(12.)	(13.)	(14.)	(15.)	(16.)
423	234	342	597	675	756	283	832
842	323	537	812	524	451	167	981
424	879	863	444	963	743	813	923

(17.)	(18.)	(19.)	(20.)	(21.)	(22.)	(23.)	(24.)
222	333	444	555	666	777	888	999
876	876	678	768	867	768	768	867
243	234	243	432	231	213	312	321

(25.)	(26.)	(27.)	(28.)	(29.)	(30.)	(31.)	(32.)
454	231	324	543	434	525	622	872
666	666	666	666	666	666	666	666
545	755	824	774	643	597	456	457

(33.)	(34.)	(35.)	(36.)	(37.)	(38.)	(39.)	(40.)
421	431	443	454	465	476	487	498
888	888	888	888	888	888	888	888
227	236	245	254	263	272	281	290

(41.)	(42.)	(43.)	(44.)	(45.)	(46.)	(47.)	(48.)
777	666	555	876	808	178	147	255
888	777	666	678	696	399	258	388
999	888	999	796	696	466	370	579

(49.)	(50.)	(51.)	(52.)	(53.)	(54.)	(55.)	(56.)
816	186	618	618	438	159	753	183
357	753	753	735	951	672	249	492
492	294	249	293	276	834	618	755

(57.)	(58.)	(59.)	(60.)	(61.)	(62.)	(63.)	(64.)
501	357	639	421	278	399	423	987
327	762	639	422	430	857	456	789
896	894	639	423	609	159	789	897

EXERCISE VII.

(1.) 523 846 924 478	(2.) 279 325 462 794	(3.) 823 713 267 605	(4.) 734 732 987 642	(5.) 123 456 789 987	(6.) 323 648 429 874	(7.) 972 523 246 497	(8.) 328 371 762 506
(9.) 424 571 123 234	(10.) 425 582 456 842	(11.) 426 523 739 243	(12.) 427 483 987 567	(13.) 428 768 654 675	(14.) 429 737 321 576	(15.) 460 888 218 765	(16.) 431 245 456 905
(17.) 555 128 890 478	(18.) 555 234 789 632	(19.) 555 345 678 647	(20.) 666 456 567 326	(21.) 666 567 456 268	(22.) 666 678 345 476	(23.) 777 789 234 236	(24.) 777 890 128 874
(25.) 888 987 546 246	(26.) 888 876 654 843	(27.) 888 765 564 721	(28.) 999 654 645 804	(29.) 999 543 456 763	(30.) 999 432 465 542	(31.) 999 321 663 167	(32.) 992 219 660 836
(33.) 111 798 456 567	(34.) 111 987 564 675	(35.) 111 879 654 756	(36.) 222 789 323 576	(37.) 222 897 233 765	(38.) 222 678 322 657	(39.) 333 786 489 473	(40.) 333 867 894 734
(41.) 444 987 245 764	(42.) 444 789 452 647	(43.) 444 879 542 746	(44.) 464 798 623 467	(45.) 474 978 236 215	(46.) 484 897 623 152	(47.) 494 887 845 512	(48.) 404 997 458 125
(49.) 814 173 984 179	(50.) 148 137 894 917	(51.) 481 713 849 719	(52.) 841 731 948 278	(53.) 184 654 498 782	(54.) 418 546 719 827	(55.) 317 456 691 872	(56.) 371 489 971 287

EXERCISE VIII.

(1.) 123	(2.) 234	(3.) 345	(4.) 456	(5.) 567	(6.) 678	(7.) 789	(8.) 890
673	637	736	763	367	376	425	452
359	395	539	593	935	953	760	607
491	419	914	941	149	194	555	666
764	647	476	832	328	238	456	564
(9.) 808	(10.) 707	(11.) 909	(12.) 306	(13.) 205	(14.) 404	(15.) 303	(16.) 101
191	181	171	161	151	141	131	121
712	713	714	715	716	717	178	888
999	999	999	999	999	999	999	999
475	764	574	629	296	628	413	314
(17.) 391	(18.) 989	(19.) 986	(20.) 728	(21.) 489	(22.) 784	(23.) 149	(24.) 648
546	376	456	234	897	487	941	459
788	899	732	487	604	748	419	888
738	763	845	325	532	642	837	999
684	839	678	674	786	426	378	777
(25.) 737	(26.) 426	(27.) 267	(28.) 684	(29.) 262	(30.) 598	(31.) 824	(32.) 298
868	815	884	218	157	328	931	804
877	733	192	642	336	864	268	796
315	862	395	395	727	515	605	899
429	914	428	186	148	283	298	595
(33.) 469	(34.) 476	(35.) 888	(36.) 777	(37.) 666	(38.) 746	(39.) 679	(40.) 814
736	738	546	763	476	151	685	352
584	479	387	547	875	906	428	432
738	868	985	293	987	341	956	769
796	723	840	738	863	818	149	576
(41.) 879	(42.) 878	(43.) 678	(44.) 456	(45.) 629	(46.) 673	(47.) 985	(48.) 368
846	678	234	276	796	675	957	377
638	247	763	876	756	369	697	496
206	629	462	742	743	334	467	987
441	336	489	774	749	641	297	306

EXERCISE IX.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)
965	234	576	834	525	784	967	489
29	54	16	485	9	802	5	93
4	18	2	94	16	2	5	6
725	824	936	777	832	19	28	3
11	9	24	16	15	92	54	8
295	277	564	821	976	555	423	869
(9.)	(10.)	(11.)	(12.)	(13.)	(14.)	(15.)	(16.)
94	91	2	825	4	872	1	17
784	991	24	28	5	764	84	71
12	29	242	6	6	231	2	304
456	8	62	72	9	84	90	317
78	277	5	849	78	5	872	371
999	645	789	674	873	9	648	731
(17.)	(18.)	(19.)	(20.)	(21.)	(22.)	(23.)	(24.)
19	7	507	191	707	234	41	249
91	17	570	19	70	48	14	49
119	71	755	476	879	276	404	487
911	117	15	476	879	112	673	9
9	711	51	489	19	9	91	10
191	867	9	476	847	793	9	876
(25.)	(26.)	(27.)	(28.)	(29.)	(30.)	(31.)	(32.)
376	65	249	2	18	872	849	4
6	439	18	607	971	56	764	2
49	17	507	49	19	3	25	9
17	963	4	825	6	4	52	804
836	2	83	15	3	9	68	2
724	59	7	5	4	17	791	5
(33.)	(34.)	(35.)	(36.)	(37.)	(38.)	(39.)	(40.)
847	47	7	8	8	5	826	729
975	873	241	7	80	50	268	8
123	842	567	9	70	51	68	9
45	9	91	4	77	15	8	7
673	765	723	5	17	763	80	6
444	888	999	674	338	847	153	543

EXERCISE X.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
5684	1234	2345	3456	4567	5678	6780
2043	8448	5237	4959	4262	6157	3951
1929	6427	4795	8136	9102	2992	6427
8415	7698	5365	3706	8529	5767	3868
2989	9998	4787	7886	5976	4836	6576
7286	6949	3996	6933	5799	6397	4798

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
5863	2987	3875	5476	9969	4763	8547
6298	8546	6985	5763	5738	5868	7588
4736	7387	4849	8476	2479	4723	4688
5796	6738	2584	8936	9876	3869	8476
5621	3584	7385	2374	2135	2136	3468
5824	5814	4092	3224	2806	4187	2109

(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)
6294	6295	9863	5385	2987	5876	3659
5386	3629	4769	5869	3629	3896	7654
5876	3872	5698	5684	2473	5668	7396
2854	8476	3529	3896	2579	4847	6392
4736	6285	2379	7654	5847	6393	3876
7654	8476	6369	6385	8496	5826	6573

(22.)	(23.)	(24.)	(25.)	(26.)	(27.)	(28.)
7685	8847	6886	7366	4768	8583	7688
8584	6378	5476	8888	7634	4765	7685
4567	5763	7684	7801	3456	4576	7688
7878	6767	4567	8978	4358	6732	1234
9876	4567	2453	2013	8042	6632	9459
6738	7654	4568	3247	4567	1881	2456

(29.)	(30.)	(31.)	(32.)	(33.)	(34.)	(35.)
4066	4472	4215	4346	4356	4445	4455
4485	4492	4497	8756	9834	8349	4983
8765	7658	6587	5876	6587	5785	7893
4788	7879	9847	5826	4897	2856	3765
9976	2876	6257	8576	6538	6328	3896
3698	8976	9984	3786	8934	9358	5789

EXERCISE XI.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
1066	1172	1215	1314	1346	1356	1415
1455	1485	1492	1497	1517	1587	1588
1603	1642	1649	1660	1679	1685	1690
1697	1702	1704	1706	1708	1709	1713
1720	1746	1757	1759	1776	1783	1805
1868	1812	1813	1814	1815	1821	1832
1846	1854	1856	1860	1866	1867	1881

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
6948	2576	3847	5694	3847	2264	3876
5738	5873	2986	5469	8576	5847	3869
5768	4768	3849	5768	4739	8576	8476
3857	1897	6295	3875	2469	8376	2958
3796	5873	2984	5769	3857	2456	9899
1234	5874	3699	8576	2584	7369	8476
5239	8475	3258	1893	2987	2104	6359
6418	8578	7364	5843	7289	5467	6384

(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)
2589	5656	8483	8876	2849	4763	1849
9012	3456	7894	6872	2596	7732	6874
5437	9637	2589	1847	4763	9875	3856
4734	8982	2898	9824	8942	7648	6487
4573	5734	3454	7849	2432	6466	1294
4929	2573	3994	5784	4573	2984	5678
2985	9852	8529	2958	9582	2598	4293

(22.)	(23.)	(24.)	(25.)	(26.)	(27.)	(28.)
6973	9736	7369	3696	9763	3976	6379
8465	4865	8564	6845	5864	5468	4586
3896	2579	3847	6392	4736	6285	2379
7654	8888	9999	7777	6666	5555	4444
3333	2222	1111	3014	8476	6782	2763
2148	4832	4621	4162	3752	8476	9652
2841	2194	2189	6784	7628	2456	2189

EXERCISE XII.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
1234	5678	9347	7642	4765	9876	5678
5678	9876	8567	6427	7654	8765	9999
9098	5432	5918	4276	6547	6543	2585
3210	5186	5897	7246	1234	5432	6757
9876	9765	6324	5467	2345	4321	4563
5432	5487	8529	4672	3436	3210	8473
3456	9324	9897	6724	4567	2109	1881

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
4455	5566	6677	7788	8879	9933	3322
4559	5665	1852	1873	7873	9263	1234
5594	6655	2963	1739	9339	8174	5678
5954	6556	3074	2841	8240	7085	9616
9545	1234	4185	3952	7151	6296	8727
4676	2345	5296	4063	6062	5307	7838
6478	3456	6307	5174	5173	4418	6949
8746	4567	7418	6285	4284	3529	5050

(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)
9876	5432	1023	4567	8901	2345	6789
1234	5678	9012	3456	7890	1234	5678
8876	5432	1987	6543	2109	8765	4321
7654	3210	9876	5432	8754	3241	7892
5432	2345	6789	9876	5432	2345	6787
6789	4876	5442	3444	6677	8998	3456
7884	6884	7921	1987	1042	1679	1685
3333	4444	5555	6666	7777	8888	9999

(22.)	(23.)	(24.)	(25.)	(26.)	(27.)	(28.)
8112	7	8888	2	6	4142	2847
712	17	888	33	60	9	4563
12	217	88	333	600	7	24
2	8471	8	3333	6000	8746	9
21	987	7	4444	7777	7925	42
217	64	99	444	700	4	167
7821	5	999	44	70	8	8491
4259	1234	9999	4	7	3216	4057

EXERCISE XIII.

Add together :

- (1) 489, 763, 600, 50, 7, 19, 8, 487, 87
- (2) 800, 674, 85, 721, 8, 21, 6, 91, 505
- (3) 874, 829, 719, 19, 91, 9, 17, 84, 777
- (4) 18, 118, 181, 81, 8, 11, 6, 21, 202
- (5) 9, 98, 89, 989, 998, 19, 5, 294, 17
- (6) 338, 33, 3, 30, 300, 17, 2, 899, 71
- (7) 888, 800, 80, 8, 4, 444, 87, 654, 27
- (8) 77, 7, 777, 17, 71, 777, 13, 39, 849
- (9) 999, 99, 900, 90, 9, 798, 7, 47, 674
- (10) 764, 647, 829, 78, 87, 9, 1, 59, 809
- (11) 7, 70, 6, 60, 666, 777, 676, 874, 77
- (12) 21, 12, 112, 221, 897, 807, 6, 801, 18
- (13) 28, 82, 80, 2, 828, 288, 828, 23, 303
- (14) 1, 12, 9, 21, 811, 118, 881, 29, 444
- (15) 901, 109, 190, 74, 76, 8, 2, 81, 202
- (16) 802, 803, 804, 4, 5, 15, 14, 997, 13
- (17) 960, 900, 60, 666, 66, 9, 8, 291, 92
- (18) 609, 610, 611, 11, 12, 8, 7, 34, 309
- (19) 842, 9, 802, 10, 888, 29, 9, 39, 807
- (20) 123, 321, 213, 14, 15, 5, 6, 678, 55
- (21) 221, 232, 847, 9, 3, 18, 19, 825, 17
- (22) 456, 564, 645, 45, 46, 5, 4, 87, 543
- (23) 45, 450, 405, 540, 54, 4, 5, 345, 33
- (24) 4, 40, 400, 44, 444, 444, 4, 211, 18
- (25) 5, 6, 56, 566, 656, 59, 985, 15, 234
- (26) 18, 19, 8, 9, 984, 489, 849, 117, 71
- (27) 28, 2, 9, 87, 647, 746, 476, 43, 765
- (28) 1, 2, 13, 14, 315, 316, 317, 52, 792
- (29) 47, 84, 500, 404, 5, 2, 899, 270, 82
- (30) 24, 42, 4, 7, 287, 888, 764, 111, 84
- (31) 8, 999, 909, 900, 2, 99, 90, 932, 56
- (32) 18, 81, 801, 766, 9, 2, 843, 821, 83
- (33) 478, 821, 76, 27, 31, 9, 8, 77, 666
- (34) 671, 178, 84, 48, 987, 8, 5, 674, 28
- (35) 24, 99, 88, 9, 777, 555, 444, 890, 19
- (36) 505, 40, 300, 69, 734, 6, 8, 97, 678

EXERCISE XIV.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
6425	4265	2564	5624	2456	4526	6254
3127	1273	2173	3721	7123	7132	1372
9876	5432	1066	7241	8376	2504	7212
7621	5987	2345	6078	7921	5784	2167
1480	2468	1857	9876	5432	8764	2178
6328	9742	8541	2387	1552	8764	9874
2222	3333	4444	5555	6666	7777	8888
9999	1111	2222	3333	4444	5555	6666
4008	8004	4820	4208	7542	1234	5678
9870	4250	6802	7480	1243	9876	1120
6457	9011	5795	7987	3579	1357	9747

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
9236	7994	4144	5555	6666	7777	8888
7145	8990	1874	2284	1681	8742	1274
5054	9282	1867	1284	1846	8743	8672
4163	1970	1831	7612	1860	2847	2457
3272	8868	2476	3474	1746	9874	3840
1381	9757	9873	5784	9842	1843	4844
2490	2644	2454	9872	4756	1832	6784
4509	4531	7802	1425	3245	4567	1287
6618	7422	1024	1674	6784	8904	4976
8727	8343	4765	8724	4972	5678	3245
7836	6258	4756	5805	4567	1847	6721

(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)
9999	3333	2222	1111	9787	6747	3727
1578	1234	6006	7809	8070	2028	2907
2987	5678	9811	6118	4589	7654	1024
3123	9012	8722	7429	1284	7324	9810
4456	3456	7533	5673	7854	1487	6432
5789	7890	6448	2874	6185	6983	7892
6023	1234	5659	1754	7296	6123	1902
7456	5678	4767	2832	8307	6456	9092
8789	9012	3876	3910	2418	6789	8789
9077	3456	5985	4898	4529	5078	7876
7345	7890	1794	5776	9630	4987	6542

EXERCISE XV.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
45678	56789	67890	78945	89456	95678	54678
12345	23456	34567	45678	56789	67890	78945
23456	34567	45678	56689	67890	78912	89123
99999	88888	77777	66666	55555	44444	33333
47624	76244	62447	24476	44762	74426	76442
85325	53258	32585	25853	58532	82535	53528
19876	98761	87619	76198	61987	98671	67981
34215	21478	74215	15443	43214	19041	45182
26140	96743	26314	96741	50672	76358	21346
71324	21896	70246	84127	14345	49126	70918
26182	44715	25981	20164	27064	77421	47362

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
99781	28274	20507	61245	80247	61245	80127
82622	94321	44433	22244	30884	66540	21094
73513	27645	55544	11133	27964	56664	25774
64304	34418	66633	96642	24641	49651	19684
53275	29047	77744	76545	61543	24656	41544
42926	45121	88822	82576	25620	63132	25023
34847	36641	99911	81702	30545	64313	24136
22458	25614	12375	45673	28496	97842	16663
15539	26649	78424	24880	16452	56565	56645
24621	43261	87654	99887	65645	25632	16531
33212	21934	29875	66554	52366	21563	65424

(15.)	(16.)	(17.)	(18.)	(19.)	(20.)	(21.)
82014	32146	25643	65464	65214	54640	56650
12345	67890	12345	67890	90656	54321	65546
32160	66543	21656	65431	16566	43216	87645
66543	18968	54329	96564	26456	18864	21657
66453	90639	59762	12345	23456	34567	45895
88899	99966	25493	89576	73212	69024	21676
55544	90068	26799	43685	65907	98765	43243
42424	24242	42424	24242	42424	24242	34276
3 631	63163	36316	61316	13663	61361	69182
45674	56420	99999	99999	65321	58907	86741
67890	67896	78967	89678	96789	67896	76644

EXERCISE XVI.

- (1) 9516 + 8574 + 3926 + 8439 + 8598 + 6789 + 8674 + 3429
- (2) 7634 " 8324 " 8527 " 7964 " 5870 " 7034 " 5784 " 8000
- (3) 5863 " 7642 " 7645 " 4567 " 9978 " 2468 " 1357 " 9048
- (4) 7896 " 8967 " 9678 " 6789 " 7890 " 8697 " 7986 " 7689
- (5) 1234 " 4567 " 5678 " 6789 " 7890 " 2222 " 6666 " 7654
- (6) 2186 " 1867 " 7018 " 2856 " 2534 " 3178 " 8576 " 5843
- (7) 7898 " 4875 " 8528 " 7643 " 8729 " 7674 " 9321 " 8541
- (8) 5678 " 9347 " 5679 " 2345 " 4136 " 8214 " 1020 " 1184
- (9) 7482 " 3756 " 6437 " 6475 " 5784 " 5867 " 8728 " 8764
- (10) 6721 " 9213 " 2137 " 7192 " 8475 " 3196 " 8736 " 6543
- (11) 84 + 896 + 2456 + 17 + 71 + 57876 + 45678 + 94 + 245
- (12) 987 + 87 + 7 + 87 + 66 + 28496 + 78456 + 50067 + 849
- (13) 678 + 804 + 4 + 14 + 144 + 2784 + 117 + 711 + 171 + 45678
- (14) 84567 + 4567 + 567 + 67 + 7 + 78 + 788 + 7838 + 45678 + 9
- (15) 6 + 56 + 456 + 3456 + 23456 + 45798 + 5798 + 798 + 739
- (16) 24 + 244 + 8764 + 78456 + 3 + 24 + 378 + 45678 + 42678
- (17) 45678 + 78456 + 87941 + 84764 + 79299 + 78447 + 248
- (18) 47 + 28 + 98 + 76 + 67 + 54 + 39 + 84 + 19 + 91 + 72 + 82 + 7
- (19) 67876767 + 45678436 + 47849123 + 84764397 + 4678
- (20) 247 + 834 + 798 + 563 + 123 + 897 + 764 + 532 + 879 + 842
- (21) 987 + 879 + 798 + 654 + 546 + 465 + 654 + 321 + 213 + 123
- (22) 9426 + 7211 + 3476 + 2468 + 2789 + 1234 + 1478 + 7849
- (23) 9763 " 3178 " 2456 " 1893 " 5256 " 2456 " 7853 " 2131
- (24) 98 + 24 + 56 + 78 + 21 + 19 + 84 + 78 + 26 + 99 + 34 + 87 + 7
- (25) 82 " 91 " 55 " 44 " 33 " 77 " 88 " 99 " 79 " 84 " 11 " 90 " 2
- (26) 845 + 678 + 792 + 297 + 456 + 843 + 789 + 764 + 532 + 784
- (27) 321 " 456 " 789 " 987 " 765 " 573 " 372 " 123 " 345 " 456
- (28) 987645678432 + 989796959493 + 818283848587 + 7824
- (29) 987425678439 " 686786759738 " 678484769784 + 1234
- (30) 4236 + 2564 + 1234 + 8888 + 7777 + 6666 + 5555 + 4444
- (31) 89784 + 9789 + 798 + 91 + 9 + 90 + 909 + 842 + 234356
- (32) 99 + 999 + 9999 + 99999 + 999099 + 9999999 + 99999999

EXERCISE XVII.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)	(9.)	(10.)
99	84	66	56	12	47	99	49	21	55
88	88	66	78	34	19	99	48	22	77
77	88	66	90	53	18	99	59	23	22
66	88	66	54	98	90	99	89	24	44
55	88	66	65	90	82	99	90	25	35
44	88	66	83	98	34	99	98	26	64
33	88	66	96	89	56	99	32	27	72
22	88	66	42	54	98	99	63	28	27
11	88	66	59	32	65	99	83	29	51
98	88	66	89	10	32	99	91	20	15
86	77	66	12	87	92	99	17	74	26
54	77	55	72	64	15	69	84	76	78
32	77	55	34	46	64	99	27	78	21
19	77	55	45	78	43	99	86	78	30
87	77	52	67	79	33	99	74	50	12
65	77	55	84	84	82	99	28	52	80
43	77	55	78	17	45	99	48	54	79
(11.)	(12.)	(13.)	(14.)	(15.)	(16.)	(17.)	(18.)	(19.)	(20.)
84	94	33	71	17	98	76	54	32	19
22	27	44	52	17	87	55	43	21	90
64	34	55	83	17	65	43	20	19	87
22	29	57	74	28	54	32	10	67	87
76	45	44	45	28	98	37	84	54	35
22	36	56	36	28	13	84	76	27	43
64	25	68	47	36	24	56	88	77	32
33	43	71	38	36	88	33	22	84	71
96	21	89	79	36	12	34	56	78	72
33	54	97	50	45	98	76	54	32	97
68	74	14	23	45	19	20	57	12	34
31	21	53	61	45	28	12	40	56	78
56	30	78	19	59	37	24	22	90	98
44	26	30	23	59	46	34	97	76	64
89	74	47	81	59	55	44	28	32	10
44	51	56	91	63	64	69	49	98	76
67	89	83	12	63	73	79	73	54	43
44	84	41	19	64	82	88	64	24	89
75	97	27	74	72	91	78	19	67	52

EXERCISE XVIII.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)	(8.)
654	943	216	222	666	777	214	107
321	212	472	999	666	777	821	710
804	764	145	777	666	777	502	107
408	534	307	555	666	777	706	276
987	418	142	555	666	777	660	487
654	290	684	444	666	555	123	673
321	474	374	333	666	555	784	171
456	512	126	297	666	555	132	874
564	136	510	792	666	555	762	672
645	841	424	888	999	444	707	267
888	257	948	888	999	444	202	843
777	144	184	888	999	444	470	481
987	428	123	888	999	444	872	871
789	121	976	888	999	444	202	178
879	945	417	888	999	333	120	976
764	421	274	888	999	333	101	453
234	387	186	888	999	333	847	421
187	902	974	888	999	982	623	976
718	764	526	888	999	289	804	304

(9.)	(10.)	(11.)	(12.)	(13.)	(14.)	(15.)	(16.)
199	924	876	602	405	450	540	320
488	123	456	789	987	654	321	607
777	987	654	321	780	203	809	791
969	207	840	763	287	976	481	763
258	270	804	736	278	967	418	736
547	423	432	243	235	187	781	718
837	222	333	444	555	666	777	888
129	999	204	305	406	507	808	909
118	180	270	680	220	210	220	238
426	637	637	736	673	245	542	520
737	812	218	821	182	271	172	214
945	674	362	143	872	184	892	632
355	432	234	432	786	271	802	801
569	707	706	760	340	820	207	867
876	220	607	110	302	708	540	203
183	202	670	101	320	780	504	230
490	411	631	742	671	283	762	672

EXERCISE XIX.

(1.)	(2.)	(3.)	(4.)	(5.)	(6.)	(7.)
4167	2378	4106	3721	1487	6732	7814
1063	2874	4184	6324	8413	4025	2174
1083	7564	4761	7138	6714	4038	7519
4878	3647	2082	1725	4163	6124	4137
6425	1813	7469	8378	2094	6187	7436
5284	2041	3872	4103	6027	4908	6006
2041	6387	2410	3680	3714	2843	7842
4136	8749	6008	2813	6740	3724	1085
6038	6374	2028	4138	6721	4378	3416
8907	7041	7206	1084	2874	7653	2807
7105	7324	6084	4068	4174	4073	8047
4567	8901	2345	6789	9876	5432	1874
9912	3456	7890	9987	6484	5678	9080
8888	9999	7777	6666	5555	4444	3333
1838	1881	1066	6464	5353	4242	7171
2927	9512	1881	2222	2222	2222	2222
3716	8434	1470	1470	7414	7345	1234
8005	7356	2589	2589	6325	8267	5678

(8.)	(9.)	(10.)	(11.)	(12.)	(13.)	(14.)
6116	8735	1264	5267	2848	8461	9714
5995	2157	7569	6421	1936	8374	3097
4884	7576	5766	4005	6388	6194	7240
3773	8721	1204	5672	2118	1124	9241
2662	1879	6724	8491	2567	7284	4124
1551	6999	4466	3211	1232	2184	1231
2442	3144	2954	7058	9822	2875	4836
3333	8375	9884	3244	7767	9886	2375
4224	1247	2471	4721	4334	2332	2114
5115	4457	6678	7789	8890	2210	3345
6006	1921	9211	4230	3420	7182	8124
7784	3333	3444	4445	5224	5226	7812
8123	7755	5543	8421	9876	8476	4976
9456	9219	9402	4324	4342	1212	2142
5789	7621	4121	7213	8129	9124	7214
6012	6178	2134	4567	8901	2345	6789
7345	2111	3111	4111	5005	6007	8009

SUBTRACTION.

EXERCISE I.

(1.) 2 1	(2.) 3 2	(3.) 7 1	(4.) 4 3	(5.) 8 5	(6.) 8 4	(7.) 7 2	(8.) 9 6	(9.) 6 3	(10.) 5 2
(11.) 8 3	(12.) 8 5	(13.) 8 7	(14.) 9 4	(15.) 9 5	(16.) 9 7	(17.) 9 2	(18.) 7 3	(19.) 7 4	(20.) 7 6
(21.) 6 2	(22.) 6 5	(23.) 6 6	(24.) 6 4	(25.) 8 1	(26.) 9 4	(27.) 7 1	(28.) 5 4	(29.) 8 6	(30.) 4 2
(31.) 10 6	(32.) 10 4	(33.) 10 2	(34.) 10 3	(35.) 10 7	(36.) 10 8	(37.) 10 9	(38.) 10 1	(39.) 10 5	(40.) 10 3
(41.) 11 2	(42.) 11 4	(43.) 11 6	(44.) 11 8	(45.) 11 3	(46.) 11 5	(47.) 11 7	(48.) 11 9	(49.) 12 8	(50.) 12 6
(51.) 12 4	(52.) 12 3	(53.) 12 5	(54.) 12 7	(55.) 12 6	(56.) 12 9	(57.) 12 8	(58.) 13 4	(59.) 13 8	(60.) 13 5
(61.) 13 9	(62.) 13 6	(63.) 13 7	(64.) 14 5	(65.) 14 7	(66.) 14 6	(67.) 24 9	(68.) 14 8	(69.) 15 9	(70.) 15 6
(71.) 15 8	(72.) 15 7	(73.) 16 8	(74.) 16 7	(75.) 16 9	(76.) 17 9	(77.) 17 8	(78.) 18 9	(79.) 14 10	(80.) 19 10
(81.) 45 22	(82.) 67 22	(83.) 89 22	(84.) 34 22	(85.) 76 22	(86.) 48 22	(87.) 88 22	(88.) 54 22	(89.) 57 22	(90.) 53 22
(91.) 93 33	(92.) 84 33	(93.) 75 33	(94.) 68 33	(95.) 57 33	(96.) 48 33	(97.) 39 33	(98.) 59 33	(99.) 95 33	(100.) 67 33

EXERCISE II.

(1.) 567 444	(2.) 658 444	(3.) 678 443	(4.) 789 434	(5.) 654 442	(6.) 747 441	(7.) 856 440	(8.) 794 324
(9.) 987 421	(10.) 876 723	(11.) 765 423	(12.) 654 232	(13.) 543 231	(14.) 431 212	(15.) 773 423	(16.) 897 576
(17.) 689 123	(18.) 768 323	(19.) 846 444	(20.) 468 146	(21.) 765 232	(22.) 768 312	(23.) 684 223	(24.) 874 321
(25.) 624 313	(26.) 657 425	(27.) 756 522	(28.) 839 617	(29.) 983 442	(30.) 817 805	(31.) 535 222	(32.) 748 333
(33.) 778 125	(34.) 889 545	(35.) 665 432	(36.) 558 214	(37.) 447 215	(38.) 339 116	(39.) 228 103	(40.) 999 268
(41.) 566 284	(42.) 777 432	(43.) 899 234	(44.) 988 456	(45.) 785 645	(46.) 694 463	(47.) 748 512	(48.) 884 713
(49.) 697 302	(50.) 769 135	(51.) 967 322	(52.) 527 215	(53.) 618 107	(54.) 928 514	(55.) 647 333	(56.) 578 255
(57.) 692 271	(58.) 297 154	(59.) 926 311	(60.) 936 425	(61.) 639 427	(62.) 369 123	(63.) 757 132	(64.) 773 312
(65.) 276 242	(66.) 726 323	(67.) 627 125	(68.) 267 295	(69.) 597 491	(70.) 795 773	(71.) 957 324	(72.) 579 232
(73.) 1049 825	(74.) 1168 632	(75.) 1297 473	(76.) 1359 737	(77.) 1483 821	(78.) 1565 723	(79.) 1675 814	(80.) 1777 925

EXERCISE III.

Teach "Borrowing."

(1.)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
724	547	234	873	672	415	873	542
618	439	116	365	253	108	526	236
(9)	(10.)	(11.)	(12)	(13)	(14)	(15)	(16.)
457	832	786	455	367	283	764	467
348	416	259	326	138	179	328	238
(17.)	(18.)	(19)	(20)	(21)	(22.)	(23)	(24)
724	732	817	634	758	929	848	736
562	241	542	453	285	283	593	463
(25)	(26.)	(27)	(28)	(29)	(30)	(31)	(32)
627	845	976	528	438	829	917	745
472	482	492	363	373	555	444	654
(33.)	(34.)	(35)	(36)	(37)	(38)	(39)	(40)
521	632	723	842	824	916	661	947
345	478	439	255	466	577	488	699
(41.)	(42.)	(43)	(44)	(45)	(46.)	(47.)	(48)
922	822	722	622	522	422	322	222
433	444	555	266	477	388	199	147
(49)	(50.)	(51)	(52)	(53)	(54)	(55)	(56.)
786	455	782	623	456	374	426	723
499	268	197	298	287	196	298	285
(57.)	(58)	(59)	(60)	(61)	(62)	(63)	(64)
444	555	666	777	748	639	784	658
296	389	277	488	329	362	193	284
(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)
304	607	808	702	670	840	320	201
196	278	326	489	298	256	177	183
(73)	(74)	(75)	(76)	(77)	(78)	(79.)	(80)
567	876	768	678	505	376	842	701
222	438	297	382	414	193	485	425

EXERCISE IV.

(8.) 542 236	(1.) 6478 2222	(2.) 5729 2222	(3.) 3872 2222	(4.) 5415 2222	(5.) 6784 2222	(6.) 7624 2222	(7.) 7819 2222	(8.) 8976 2222
(16.) 467 238	(9.) 8021 3333	(10.) 7345 3333	(11.) 8713 3333	(12.) 4924 3333	(13.) 7181 3333	(14.) 6502 3333	(15.) 4506 3333	(16.) 7918 3333
(24.) 736 463	(17.) 7698 4444	(18.) 4651 4444	(19.) 4847 4444	(20.) 4564 4444	(21.) 8478 4444	(22.) 9876 4444	(23.) 5421 4444	(24.) 8462 4444
(32.) 745 654	(25.) 6789 5555	(26.) 6542 5555	(27.) 8721 5555	(28.) 7623 5555	(29.) 6104 5555	(30.) 7089 5555	(31.) 8102 5555	(32.) 9123 5555
(40.) 947 699	(33.) 6111 6666	(34.) 8222 6666	(35.) 7333 6666	(36.) 9444 6666	(37.) 8555 6666	(38.) 7242 6666	(39.) 9524 6666	(40.) 8103 6666
(48.) 222 147	(41.) 8555 7777	(42.) 9666 7777	(43.) 8610 7777	(44.) 9214 7777	(45.) 8181 7777	(46.) 9782 7777	(47.) 8142 7777	(48.) 9124 7777
(56.) 723 285	(49.) 9123 8888	(50.) 9456 8888	(51.) 9789 8888	(52.) 9654 8888	(53.) 9321 8888	(54.) 9456 8888	(55.) 9765 8888	(56.) 9432 8888
(64.) 658 284	(57.) 7845 1999	(58.) 6784 2999	(59.) 4024 1999	(60.) 8476 4999	(61.) 2041 1999	(62.) 5078 2999	(63.) 9012 6999	(64.) 8476 7999
(72.) 201 183	(65.) 4750 2899	(66.) 2768 1999	(67.) 3241 2888	(68.) 3078 1796	(69.) 9476 8234	(70.) 4021 4009	(71.) 8990 9899	(72.) 8912 7642
(80.) 01 25	(73.) 6504 4897	(74.) 6704 5294	(75.) 7002 2193	(76.) 8970 4215	(77.) 1897 1799	(78.) 6842 2989	(79.) 9008 2825	(80.) 7681 3249

EXERCISE V.

(1.) 50123 13846	(2.) 67123 23456	(3.) 89764 78987	(4.) 21478 18976	(5.) 34987 23999	(6.) 25041 19888	(7.) 91204 19876
(8.) 70324 46429	(9.) 80189 53876	(10.) 76812 29874	(11.) 91324 28976	(12.) 67182 34242	(13.) 45554 37821	(14.) 98702 83897
(15.) 80701 68072	(16.) 86230 34871	(17.) 89702 42673	(18.) 60123 29072	(19.) 84102 41387	(20.) 83003 39872	(21.) 87002 61994
(22.) 78964 4398	(23.) 70613 29784	(24.) 78201 36989	(25.) 62454 42659	(26.) 69002 23103	(27.) 49123 24129	(28.) 50034 20035
(29.) 70123 20124	(30.) 41234 22326	(31.) 61234 32477	(32.) 91234 32387	(33.) 81234 24133	(34.) 51234 21235	(35.) 92345 46789
(36.) 92345 37890	(37.) 83459 45678	(38.) 94567 27534	(39.) 85678 25679	(40.) 96789 46799	(41.) 81234 24567	(42.) 72345 52352
(43.) 94567 74568	(44.) 87245 46392	(45.) 73201 36842	(46.) 64072 31245	(47.) 71250 34789	(48.) 98012 21345	(49.) 32972 34789
(50.) 78964 42896	(51.) 83025 36789	(52.) 87643 24674	(53.) 51892 12567	(54.) 48765 28766	(55.) 47856 12468	(56.) 98042 72913
(57.) 24689 12693	(58.) 83025 24898	(59.) 87643 25789	(60.) 51892 41201	(61.) 40003 20004	(62.) 26008 12463	(63.) 67205 32198
(64.) 76543 26612	(65.) 67543 34569	(66.) 56743 28943	(67.) 45673 12684	(68.) 36654 22983	(69.) 59643 52894	(70.) 46365 42136

EXERCISE VI.

(1.) 703124 123456	(2.) 972015 123456	(3.) 812346 123457	(4.) 700056 423457	(5.) 601020 311021	(6.) 421801 222222
(7.) 543201 216472	(8.) 230456 124066	(9.) 345067 246324	(10.) 405607 262143	(11.) 600789 434568	(12.) 710204 245678
(13.) 756430 271839	(14.) 876541 427890	(15.) 926745 345678	(16.) 500123 200134	(17.) 520034 134247	(18.) 600045 300046
(19.) 827689 719832	(20.) 745679 657484	(21.) 387454 239186	(22.) 289104 147387	(23.) 598324 134899	(24.) 567894 289765
(25.) 277846 274858	(26.) 377324 328835	(27.) 477123 177924	(28.) 577608 577602	(29.) 677180 256789	(30.) 777456 346847
(31.) 417078 267147	(32.) 425002 326897	(33.) 760145 256489	(34.) 806249 346718	(35.) 721456 234579	(36.) 801987 486789
(37.) 487692 436184	(38.) 874567 368742	(39.) 874102 389456	(40.) 567843 274937	(41.) 276845 148769	(42.) 813045 148769
(43.) 541786 274638	(44.) 794845 276498	(45.) 976432 349876	(46.) 567894 387627	(47.) 286781 128764	(48.) 976432 965627
(49.) 807426 328749	(50.) 874021 258764	(51.) 970456 349874	(52.) 901234 124319	(53.) 908742 245678	(54.) 655443 241879
(55.) 598746 267843	(56.) 473218 472929	(57.) 367846 367789	(58.) 721345 245632	(59.) 397846 192937	(60.) 724556 518937

EXERCISE VII.

- | | |
|------------------------|-------------------------|
| (1) 85478643—67498789 | (39) 476873248—98765495 |
| (2) 57463271—38765846 | (40) 897658972—45678589 |
| (3) 61890725—24567893 | (41) 987654321—12345678 |
| (4) 72568974—53780189 | (42) 987654321—88888888 |
| (5) 74360894—45876789 | (43) 123456789—77777777 |
| (6) 47231211—32888974 | (44) 123456789—66666666 |
| (7) 81010101—32145673 | (45) 123498765—55559897 |
| (8) 65525052—41348938 | (46) 457924580—45879370 |
| (9) 72438172—67893244 | (47) 550066007—99999999 |
| (10) 23456728—12345678 | (48) 487654387—81287643 |
| (11) 98762432—83947645 | (49) 987618112—87897864 |
| (12) 90768030—41122334 | (50) 728764121—48976879 |
| (13) 72612335—52233445 | (51) 128987676—48678919 |
| (14) 61112046—32456783 | (52) 456789769—34739019 |
| (15) 72456178—82486732 | (53) 248911122—98989898 |
| (16) 84596724—58324567 | (54) 587645873—78976432 |
| (17) 34849764—23238769 | (55) 512100013—23456783 |
| (18) 56784321—56749878 | (56) 787689121—48765478 |
| (19) 64245187—44445555 | (57) 101010101—78643247 |
| (20) 66666666—34567898 | (58) 202020202—82976458 |
| (21) 78607834—59689435 | (59) 313234353—72987654 |
| (22) 87932146—64287358 | (60) 424345467—04876543 |
| (23) 72346879—38888888 | (61) 535456575—87876894 |
| (24) 81908356—14876347 | (62) 646487432—74876849 |
| (25) 97654321—74348675 | (63) 789780021—88887777 |
| (26) 84265437—64289674 | (64) 876438754—79897092 |
| (27) 32410038—40019436 | (65) 123456789—44444444 |
| (28) 48701368—24683579 | (66) 834567892—75897894 |
| (29) 57987654—32890793 | (67) 987651111—73489456 |
| (30) 72890135—72834387 | (68) 111112222—83333333 |
| (31) 97648543—77641867 | (69) 222223333—55555555 |
| (32) 65040321—55055555 | (70) 741800004—98976543 |
| (33) 49876012—47986453 | (71) 645897659—78965479 |
| (34) 89706873—72456789 | (72) 768468457—14876547 |
| (35) 30120134—13875642 | (73) 487654311—24987486 |
| (36) 71845678—53286789 | (74) 100897654—38974609 |
| (37) 90840012—71849134 | (75) 700011871—70089765 |
| (38) 72845678—43962359 | (76) 812387674—47600298 |

EXERCISE VII.

- | | |
|----------------------------|-------------------------------|
| (1) 74856+938745-98765 | (39) 4567+3248+876-9768 |
| (2) 56789 " 48749 " 78345 | (40) 1124 " 3476 " 911 " 8718 |
| (3) 80147 " 48749 " 78345 | (41) 3318 " 1768 " 234 " 9871 |
| (4) 51014 " 89014 " 54983 | (42) 1187 " 9876 " 578 " 7645 |
| (5) 68974 " 48710 " 38456 | (43) 4378 " 5873 " 478 " 9988 |
| (6) 85476 " 78491 " 56878 | (44) 1247 " 5673-2489+122 |
| (7) 57983 " 45672 " 48767 | (45) 8712 " 8976 " 8976 " 893 |
| (8) 84974 " 56734 " 97308 | (46) 9214 " 1124 " 7689 " 238 |
| (9) 48765 " 87656 " 45732 | (47) 7612 " 8763 " 9874 " 876 |
| (10) 67849 " 76771 " 98989 | (48) 1876 " 7321 " 1876 " 109 |
| (11) 456789-23457+3245 | (49) 7624-3872+4873+679 |
| (12) 876487 " 47893 " 4673 | (50) 5487 " 3983 " 2897 " 987 |
| (13) 925387 " 79543 " 2487 | (51) 3425 " 3413 " 2843 " 213 |
| (14) 713476 " 60492 " 4876 | (52) 2176 " 1149 " 8973 " 203 |
| (15) 724897 " 38763 " 7687 | (53) 7686 " 4831 " 1204 " 214 |
| (16) 878763 " 58976 " 1211 | (54) 8796+7289-1234+897 |
| (17) 973211 " 89734 " 1029 | (55) 6489 " 9002 " 8321-248 |
| (18) 535889 " 28768 " 8798 | (56) 5255 " 9863 " 2410 " 204 |
| (19) 798765 " 99999 " 4444 | (57) 6789 " 4324 " 4555 " 884 |
| (20) 647891 " 89413 " 5678 | (58) 3879 " 5689 " 5897 " 211 |
| (21) 946874 " 29871-1984 | (59) 7484 " 1305 " 4123 " 103 |
| (22) 876543 " 24563 " 4567 | (60) 7935 " 4219 " 5678 " 438 |
| (23) 789765 " 24455 " 5467 | (61) 5719 " 8483 " 6465 " 321 |
| (24) 897689 " 98745 " 4129 | (62) 7214 " 1891 " 3241 " 238 |
| (25) 784863 " 57999 " 8764 | (63) 5679-1234 " 1033 " 243 |
| (26) 876459 " 32415 " 1299 | (64) 7865 " 4832 " 1007 " 108 |
| (27) 897689 " 78456 " 4875 | (65) 9725 " 3245 " 2632 " 345 |
| (28) 873248 " 34156 " 6687 | (66) 7486 " 2324 " 1321 " 312 |
| (29) 548765 " 23875 " 8765 | (67) 8976 " 3007 " 2245 " 909 |
| (30) 489711 " 45987 " 8987 | (68) 9976 " 2345 " 3245 " 818 |
| (31) 785467+45678 " 9877 | (69) 7687 " 3211 " 1084 " 209 |
| (32) 597698 " 84876 " 3287 | (70) 8973 " 4215 " 1121 " 876 |
| (33) 587642-49876+1245 | (71) 7787 " 2124 " 2003 " 897 |
| (34) 732114 " 81241 " 4879 | (72) 6874 " 1987 " 1881 " 527 |
| (35) 689754+32124-7611 | (73) 9008 " 2324 " 3303 " 204 |
| (36) 393754 " 89124 " 8976 | (74) 7199 " 3224 " 2112 " 313 |
| (37) 124587-40003+7321 | (75) 9097 " 1897 " 2108 " 211 |
| (38) 486751+89412-2198 | (76) 8789 " 3432 " 2193 " 199 |

EXERCISE IX.

- (1) $3467+4589+1289+7394+9876+8034+4876-9786$
- (2) $5876+8763+7833+1894+7832+7897-2876-1234$
- (3) $9999+4832+8711+3876+7329-1897-1387-3425$
- (4) $97684+3487+3485+7002+1897-3253-2872-124$
- (5) $83214+9345+8321+7989-2245-897-1887-4863$
- (6) $68935+2118-7645+976-2453+1879-2843+7632$
- (7) $4863-1897+8462-1456+7834-2873+1898-1125$
- (8) $3456+7894-3456+7248-1467+3871-3415+8976$
- (9) $3987+5478-2496+8732-5678+5989-7684-3423$
- (10) $7493-5897+4384-3496+7842-1847+3874-6468$
- (11) $2345-2344+5897-5893+1876-1872+1881-1880$
- (12) $7893+3107-9999+7777-7768+2990-2999+1001$
- (13) $6420+4578-6748+8401-1048+2311-8721-2209$
- (14) $7642-8976+4732-1205+7879-2821+7897-1208$
- (15) $2334-5558+1218-3287+9897-1021+8976-2829$
- (16) $9786+7439-9787-2864-1483+8976+7328+8763$
- (17) $4283-2187-1111+3034-4580+1897+2288-2347$
- (18) $4897+2187-5989+2453-1987+2556-2249+1187$
- (19) $489769187847-489769187900+8953-8999+399$
- (20) $24-99-84-97+8974-84976+56897+893+23456$
- (21) $9+8-12-18+17-71+804-207+8497+84987+678$
- (22) $208+764-873+762-2008+76489-245-387+679$
- (23) $7892+8902-7872-2084+7389+201-99-24+888$
- (24) $12345-9876+425-1324-27+803-72+32345678$
- (25) $897+999-4567-2408+7896+3475-2701-84569$
- (26) $724564-9-99-9999-99999+7328-2451+75678$
- (27) $24875-78643+87241-4567-245+87643-45679$
- (28) $7424789-7424780+91-100+244-4888+345678$
- (29) $2008+8+80+800+8000-78-703-8474-21+3676$
- (30) $3009-9987+7563-3487+4444+2324-8971+9998$
- (31) $2456+3245+3279-1245-7998+7245-6324+8472$
- (32) $2978-2648-4763-8976+9732+0123+8732-4638$
- (33) $9999-1111-1222-1004-1057-1009-1093-1213$
- (34) $7842+2156-2222+3333-1214-3222-1121+3212$
- (35) $6987+6013-1111+2222+3333+4444-9999-6666$
- (36) $204-99+70-10-205+3000-100+578-312+5678$
- (37) $29+31-50+74-47-23-4+5+15-29+25+25+85$
- (38) $47245-47241+3342-3876-2457-2873+345+93$

EXERCISE X.

*Find the difference between:**Find the difference between:*

- | | |
|---------------------------|----------------------------|
| (1) 84765897 and 78976454 | (38) 82345678 and 92346879 |
| (2) 74632457 " 83245683 | (39) 78456784 " 78448937 |
| (3) 97648456 " 98345678 | (40) 98764874 " 98456843 |
| (4) 12345678 " 12345679 | (41) 98324567 " 99845328 |
| (5) 98764321 " 97654324 | (42) 45678421 " 45678589 |
| (6) 88345678 " 74324667 | (43) 24876499 " 24879984 |
| (7) 24543784 " 97632413 | (44) 12345678 " 12344567 |
| (8) 54768421 " 32486724 | (45) 87948973 " 48728974 |
| (9) 24567843 " 18976452 | (46) 58973042 " 58973049 |
| (10) 97428764 " 97645894 | (47) 43287621 " 43298728 |
| (11) 28497632 " 89764528 | (48) 18976475 " 19871897 |
| (12) 10121342 " 98764312 | (49) 98764874 " 19784769 |
| (13) 45324976 " 98764321 | (50) 78976453 " 78998976 |
| (14) 98764248 " 93287687 | (51) 44848805 " 44849905 |
| (15) 54789642 " 98764284 | (52) 12345678 " 98765432 |
| (16) 78994897 " 89764873 | (53) 90000090 " 90000099 |
| (17) 78764879 " 38498999 | (54) 24876874 " 38976421 |
| (18) 24897984 " 48765437 | (55) 38764278 " 13879429 |
| (19) 38976487 " 93764899 | (56) 76876879 " 98764876 |
| (20) 74324876 " 69896989 | (57) 82178767 " 28764873 |
| (21) 48764278 " 52824211 | (58) 78768932 " 78768987 |
| (22) 38743211 " 41111999 | (59) 43287642 " 43287622 |
| (23) 45673473 " 82110100 | (60) 38978764 " 38978763 |
| (24) 23232323 " 32323282 | (61) 48768764 " 48763988 |
| (25) 45645645 " 56456445 | (62) 42873567 " 56876421 |
| (26) 80009942 " 91100029 | (63) 45873576 " 54628998 |
| (27) 24876421 " 24987243 | (64) 22398642 " 22310389 |
| (28) 56784329 " 56785329 | (65) 80477753 " 80421476 |
| (29) 74876321 " 74763324 | (66) 91576820 " 91532890 |
| (30) 98764218 " 88976339 | (67) 72665938 " 72643200 |
| (31) 24567899 " 25678948 | (68) 63754088 " 63754700 |
| (32) 14151617 " 15161718 | (69) 84843878 " 84865842 |
| (33) 32478978 " 17648476 | (70) 75932967 " 75976762 |
| (34) 58764973 " 98764879 | (71) 46721846 " 46787123 |
| (35) 56789763 " 68734879 | (72) 27612725 " 27698456 |
| (36) 24876479 " 73240012 | (73) 19523084 " 19588789 |
| (37) 89742387 " 89752387 | (74) 38434575 " 38476009 |

MULTIPLICATION.

EXERCISE I.

- | | | |
|-------------------------|--------------------------|--------------------------|
| (1) 13423103 $\times$ 2 | (11) 46378456 $\times$ 3 | (21) 84698745 $\times$ 4 |
| (2) 32101234 " 2 | (12) 83245678 " 3 | (22) 87454278 " 4 |
| (3) 42321421 " 2 | (13) 97641248 " 3 | (23) 54871013 " 4 |
| (4) 31423242 " 2 | (14) 76421874 " 3 | (24) 85673854 " 4 |
| (5) 70123432 " 2 | (15) 18741287 " 3 | (25) 67843247 " 4 |
| (6) 14704695 " 2 | (16) 76543219 " 3 | (26) 69871456 " 4 |
| (7) 92581470 " 2 | (17) 87641234 " 3 | (27) 87652847 " 4 |
| (8) 87645679 " 2 | (18) 87415432 " 3 | (28) 54789187 " 4 |
| (9) 89467947 " 2 | (19) 81978542 " 3 | (29) 76998874 " 4 |
| (10) 78463219 " 2 | (20) 67845347 " 3 | (30) 87942897 " 4 |

EXERCISE II.

- | | | |
|-------------------------|--------------------------|--------------------------|
| (1) 32549786 $\times$ 5 | (11) 98328245 $\times$ 6 | (21) 47897897 $\times$ 7 |
| (2) 78456734 " 5 | (12) 97328067 " 6 | (22) 74687453 " 7 |
| (3) 75684719 " 5 | (13) 86417189 " 6 | (23) 78456784 " 7 |
| (4) 87612145 " 5 | (14) 75417092 " 6 | (24) 23456789 " 7 |
| (5) 76897148 " 5 | (15) 64246712 " 6 | (25) 87654221 " 7 |
| (6) 16195651 " 5 | (16) 53546034 " 6 | (26) 76543210 " 7 |
| (7) 27244762 " 5 | (17) 42674959 " 6 | (27) 65432109 " 7 |
| (8) 38883874 " 5 | (18) 31674078 " 6 | (28) 54321098 " 7 |
| (9) 49772988 " 5 | (19) 28791890 " 6 | (29) 43210987 " 7 |
| (10) 50631097 " 5 | (20) 18791012 " 6 | (30) 32109876 " 7 |

EXERCISE III.

- | | | |
|-------------------------|--------------------------|--------------------------|
| (1) 68945876 $\times$ 8 | (11) 8425679 $\times$ 10 | (21) 8648794 $\times$ 12 |
| (2) 87432147 " 8 | (12) 6897123 " 10 | (22) 7865123 " 12 |
| (3) 89007849 " 8 | (13) 4567542 " 10 | (23) 5012987 " 12 |
| (4) 76420018 " 8 | (14) 6412345 " 10 | (24) 6459172 " 12 |
| (5) 89641234 " 8 | (15) 3456789 " 10 | (25) 7684978 " 12 |
| (6) 98764873 " 9 | (16) 7654351 " 11 | (26) 7641897 " 12 |
| (7) 76487934 " 9 | (17) 7654328 " 11 | (27) 8917189 " 12 |
| (8) 38748912 " 9 | (18) 3487612 " 11 | (28) 2876146 " 12 |
| (9) 56758914 " 9 | (19) 7143211 " 11 | (29) 8714187 " 12 |
| (10) 45067834 " 9 | (20) 6141897 " 11 | (30) 3481786 " 12 |

EXERCISE IV.

By factors.

- | | | |
|--------------------|-------------------|-------------------|
| (1) 36784532 × 15 | (11) 4589345 × 18 | (21) 7654324 × 21 |
| (2) 97654678 " 15 | (12) 6453897 " 18 | (22) 6784789 " 21 |
| (3) 83104373 " 15 | (13) 7645873 " 18 | (23) 7648497 " 21 |
| (4) 56879761 " 15 | (14) 9187642 " 18 | (24) 6458979 " 21 |
| (5) 12837645 " 15 | (15) 7684196 " 18 | (25) 8945083 " 21 |
| (6) 99764847 " 16 | (16) 7148762 " 20 | (26) 7698742 " 24 |
| (7) 88899997 " 16 | (17) 2564254 " 20 | (27) 7643519 " 24 |
| (8) 66677778 " 16 | (18) 8762019 " 20 | (28) 2144876 " 24 |
| (9) 58673893 " 16 | (19) 2867434 " 20 | (29) 4892176 " 24 |
| (10) 76484197 " 16 | (20) 9789789 " 20 | (30) 8671976 " 24 |

EXERCISE V.

By factors.

- | | | |
|--------------------|-------------------|-------------------|
| (1) 89764847 × 27 | (11) 8974324 × 32 | (21) 8749376 × 42 |
| (2) 78914878 " 27 | (12) 6987476 " 32 | (22) 8968794 " 42 |
| (3) 34876128 " 27 | (13) 6789789 " 33 | (23) 7308746 " 44 |
| (4) 18971896 " 27 | (14) 7987618 " 33 | (24) 3896213 " 45 |
| (5) 87691989 " 27 | (15) 7124689 " 35 | (25) 2344878 " 45 |
| (6) 56897649 " 28 | (16) 2687429 " 35 | (26) 6428647 " 48 |
| (7) 83789426 " 28 | (17) 7628793 " 36 | (27) 6897473 " 48 |
| (8) 49768974 " 28 | (18) 7648973 " 36 | (28) 2345678 " 49 |
| (9) 87948764 " 28 | (19) 5678989 " 40 | (29) 9478632 " 49 |
| (10) 10074876 " 28 | (20) 2098788 " 40 | (30) 7642897 " 50 |

EXERCISE VI.

By factors.

- | | | |
|-------------------|-------------------|--------------------|
| (1) 8647849 × 54 | (11) 7647884 × 84 | (21) 7345678 × 100 |
| (2) 7643497 " 54 | (12) 9001298 " 84 | (22) 7689732 " 100 |
| (3) 3968473 " 56 | (13) 7584976 " 88 | (23) 4879219 " 108 |
| (4) 8074327 " 56 | (14) 9784679 " 88 | (24) 7689708 " 108 |
| (5) 4500870 " 60 | (15) 8769843 " 90 | (25) 9808703 " 121 |
| (6) 7400247 " 64 | (16) 4269742 " 90 | (26) 7003224 " 121 |
| (7) 7697843 " 64 | (17) 3478921 " 96 | (27) 9748976 " 132 |
| (8) 1810976 " 72 | (18) 7486739 " 96 | (28) 7689430 " 132 |
| (9) 8764879 " 72 | (19) 2345678 " 99 | (29) 6787029 " 144 |
| (10) 4866437 " 80 | (20) 6353387 " 99 | (30) 4396147 " 144 |

EXERCISE VII.

- | | | |
|--------------------|-------------------|-------------------|
| (1) 47867248×13 | (11) 6876435×41 | (21) 1764789×73 |
| (2) 49764724 " 23 | (12) 8763247 " 43 | (22) 5678909 " 74 |
| (3) 97640127 " 17 | (13) 7692874 " 47 | (23) 4976874 " 76 |
| (4) 86456789 " 19 | (14) 7684576 " 51 | (24) 8790618 " 78 |
| (5) 45786738 " 26 | (15) 9768746 " 54 | (25) 1876487 " 79 |
| (6) 58764973 " 29 | (16) 8769746 " 59 | (26) 4218563 " 87 |
| (7) 68745384 " 31 | (17) 7896418 " 62 | (27) 8876497 " 89 |
| (8) 84769487 " 34 | (18) 8764872 " 67 | (28) 8974678 " 95 |
| (9) 96893897 " 37 | (19) 7428768 " 69 | (29) 8678973 " 97 |
| (10) 74574786 " 38 | (20) 4895895 " 71 | (30) 9764579 " 98 |

EXERCISE VIII.

- | | | |
|-------------------|-------------------|-------------------|
| (1) 894567×112 | (11) 897945×768 | (21) 728978×870 |
| (2) 876421 " 213 | (12) 976428 " 402 | (22) 145676 " 470 |
| (3) 674298 " 325 | (13) 712389 " 509 | (23) 534798 " 430 |
| (4) 764789 " 436 | (14) 767424 " 207 | (24) 874216 " 900 |
| (5) 741892 " 647 | (15) 963421 " 901 | (25) 968742 " 600 |
| (6) 741892 " 408 | (16) 476842 " 806 | (26) 974684 " 800 |
| (7) 621879 " 190 | (17) 428429 " 705 | (27) 764714 " 109 |
| (8) 764567 " 700 | (18) 764872 " 406 | (28) 621487 " 307 |
| (9) 489772 " 687 | (19) 974287 " 894 | (29) 758508 " 778 |
| (10) 245683 " 789 | (20) 287628 " 702 | (30) 400876 " 805 |

EXERCISE IX.

- | | | |
|-------------------|-------------------|--------------------|
| (1) 287645×143 | (11) 87624×5403 | (21) 45567×22040 |
| (2) 289712 " 175 | (12) 37289 " 3009 | (22) 72183 " 92318 |
| (3) 187214 " 261 | (13) 90042 " 8018 | (23) 87642 " 40012 |
| (4) 178967 " 563 | (14) 42108 " 1085 | (24) 32187 " 31200 |
| (5) 468972 " 324 | (15) 68749 " 4800 | (25) 73951 " 10023 |
| (6) 218914 " 165 | (16) 17846 " 6102 | (26) 84062 " 20006 |
| (7) 874214 " 976 | (17) 46897 " 7865 | (27) 95173 " 80088 |
| (8) 234567 " 875 | (18) 23876 " 8099 | (28) 60284 " 99777 |
| (9) 874321 " 721 | (19) 81004 " 7012 | (29) 17395 " 44555 |
| (10) 965004 " 804 | (20) 65432 " 8000 | (30) 28406 " 33333 |

EXERCISE X.

Find the squares of :

(1) 13	(11) 23	(21) 65	(31) 115
(2) 14	(12) 24	(22) 70	(32) 120
(3) 15	(13) 25	(23) 75	(33) 125
(4) 16	(14) 30	(24) 80	(34) 21
(5) 17	(15) 35	(25) 85	(35) 31
(6) 18	(16) 40	(26) 90	(36) 41
(7) 19	(17) 45	(27) 95	(37) 51
(8) 20	(18) 50	(28) 100	(38) 61
(9) 21	(19) 55	(29) 105	(39) 71
(10) 22	(20) 60	(30) 110	(40) 81

EXERCISE XI.

Find the squares of :

(1) 1000	(11) 2003	(21) 2020	(31) 1005
(2) 625	(12) 1111	(22) 5000	(32) 2013
(3) 809	(13) 2002	(23) 6666	(33) 7210
(4) 999	(14) 2000	(24) 9875	(34) 4300
(5) 888	(15) 5555	(25) 5879	(35) 1025
(6) 700	(16) 4444	(26) 5005	(36) 6102
(7) 719	(17) 3450	(27) 4100	(37) 2211
(8) 817	(18) 6788	(28) 2500	(38) 3912
(9) 244	(19) 8121	(29) 6100	(39) 4002
(10) 330	(20) 8979	(30) 1300	(40) 7005

EXERCISE XII.

Find the cubes of :

(1) 12	(11) 100	(21) 222	(31) 1000
(2) 18	(12) 110	(22) 444	(32) 2000
(3) 20	(13) 120	(23) 555	(33) 3003
(4) 25	(14) 125	(24) 666	(34) 4400
(5) 50	(15) 121	(25) 701	(35) 6500
(6) 75	(16) 130	(26) 802	(36) 2009
(7) 64	(17) 700	(27) 320	(37) 6011
(8) 95	(18) 750	(28) 331	(38) 4025
(9) 90	(19) 800	(29) 404	(39) 8712
(10) 99	(20) 900	(30) 505	(40) 8905

DIVISION.

EXERCISE I.

- | | | |
|------------------|-------------------|--------------------|
| (1) 4868842 ÷ 2 | (11) 64584765 ÷ 5 | (21) 28764870 ÷ 10 |
| (2) 6348804 " 2 | (12) 89648730 " 5 | (22) 78964890 " 10 |
| (3) 8604252 " 2 | (13) 67879284 " 6 | (23) 12345674 " 11 |
| (4) 2674388 " 2 | (14) 89395776 " 6 | (24) 24599795 " 11 |
| (5) 9636996 " 3 | (15) 27243216 " 7 | (25) 49368768 " 12 |
| (6) 6961218 " 3 | (16) 13505723 " 7 | (26) 28949076 " 12 |
| (7) 2415927 " 3 | (17) 89697848 " 8 | (27) 88983792 " 12 |
| (8) 4121620 " 4 | (18) 97859256 " 8 | (28) 59987688 " 12 |
| (9) 2432836 " 4 | (19) 92737926 " 9 | (29) 47686656 " 12 |
| (10) 3914724 " 4 | (20) 91927638 " 9 | (30) 71699508 " 12 |

EXERCISE II.

By factors.

- | | |
|---------------------|-----------------------|
| (1) 985768545 ÷ 15 | (11) 1796842688 ÷ 64 |
| (2) 687698464 " 16 | (12) 2793684249 " 81 |
| (3) 687984246 " 18 | (13) 2476894224 " 84 |
| (4) 387456320 " 20 | (14) 5437684224 " 96 |
| (5) 130224468 " 22 | (15) 3948767388 " 108 |
| (6) 876529392 " 24 | (16) 2076842427 " 121 |
| (7) 857698525 " 25 | (17) 7169950800 " 120 |
| (8) 958768461 " 27 | (18) 3176823672 " 132 |
| (9) 931684770 " 45 | (19) 5389643710 " 132 |
| (10) 904368402 " 49 | (20) 3856237776 " 144 |

EXERCISE III.

- | | |
|---------------------|-----------------------|
| (1) 8976487984 ÷ 7 | (11) 89076543218 ÷ 5 |
| (2) 2874697845 " 8 | (12) 84768974599 " 9 |
| (3) 9123456781 " 6 | (13) 41800976587 " 7 |
| (4) 4689761234 " 5 | (14) 42871861488 " 11 |
| (5) 1234567890 " 11 | (15) 18764218721 " 12 |
| (6) 9087654321 " 12 | (16) 45076087218 " 7 |
| (7) 9990088777 " 4 | (17) 41238761219 " 6 |
| (8) 9434567389 " 8 | (18) 48971368174 " 4 |
| (9) 8523783778 " 10 | (19) 28736871974 " 9 |
| (10) 7612907365 " 6 | (20) 12345678907 " 12 |

EXERCISE IV.—By factors.

Teach how to find the true remainder.

- | | | |
|-------------------|-------------------|--------------------|
| (1) 4567897 ÷ 14 | (11) 9876542 ÷ 30 | (21) 4444444 ÷ 81 |
| (2) 2789842 " 15 | (12) 2410001 " 32 | (22) 5555555 " 88 |
| (3) 1234567 " 16 | (13) 1789762 " 35 | (23) 4567874 " 99 |
| (4) 8432784 " 18 | (14) 8768742 " 36 | (24) 4287642 " 100 |
| (5) 2123333 " 20 | (15) 2688711 " 40 | (25) 1884289 " 110 |
| (6) 5056062 " 21 | (16) 5712102 " 45 | (26) 3874200 " 121 |
| (7) 8829043 " 24 | (17) 7121129 " 49 | (27) 8712897 " 132 |
| (8) 9878888 " 25 | (18) 4876428 " 56 | (28) 8642871 " 132 |
| (9) 2654855 " 27 | (19) 8972124 " 60 | (29) 4855651 " 144 |
| (10) 3435367 " 28 | (20) 3333333 " 64 | (30) 5687429 " 144 |

EXERCISE V.

- | | | |
|-------------------|-------------------|-------------------|
| (1) 4456789 ÷ 31 | (11) 8427648 ÷ 43 | (21) 7246874 ÷ 17 |
| (2) 4567871 " 41 | (12) 8972487 " 53 | (22) 2876471 " 19 |
| (3) 8764287 " 51 | (13) 7898764 " 62 | (23) 4876874 " 29 |
| (4) 1234566 " 61 | (14) 7934875 " 47 | (24) 8724863 " 39 |
| (5) 8742876 " 71 | (15) 2984687 " 46 | (25) 2876423 " 59 |
| (6) 9987421 " 91 | (16) 8978469 " 73 | (26) 2871200 " 79 |
| (7) 6478421 " 23 | (17) 6874123 " 76 | (27) 1000224 " 89 |
| (8) 4345009 " 34 | (18) 8974215 " 83 | (28) 1764278 " 67 |
| (9) 1876984 " 37 | (19) 4887642 " 86 | (29) 2764821 " 69 |
| (10) 2887649 " 38 | (20) 7897421 " 98 | (30) 4323972 " 97 |

EXERCISE VI.

- | | |
|---|---|
| (1) 742183781649 ÷ 311, 921, 864, 522, 965 | (11) 427187984805 " 420, 235, 416, 312, 824 |
| (2) 427187984805 " 420, 235, 416, 312, 824 | (12) 567897874842 " 824, 943, 715, 644, 815 |
| (3) 567897874842 " 824, 943, 715, 644, 815 | (13) 937600428742 " 900, 916, 837, 588, 794 |
| (4) 937600428742 " 900, 916, 837, 588, 794 | (14) 842867429684 " 405, 819, 194, 276, 874 |
| (5) 842867429684 " 405, 819, 194, 276, 874 | (15) 987484100921 " 200, 300, 400, 500, 600 |
| (6) 987484100921 " 200, 300, 400, 500, 600 | (16) 742123456789 " 313, 487, 694, 391, 582 |
| (7) 742123456789 " 313, 487, 694, 391, 582 | (17) 448678496642 " 840, 720, 610, 969, 877 |
| (8) 448678496642 " 840, 720, 610, 969, 877 | (18) 427687421874 " 112, 983, 227, 319, 417 |
| (9) 427687421874 " 112, 983, 227, 319, 417 | (19) 556668943239 " 900, 800, 700, 600, 500 |
| (10) 556668943239 " 900, 800, 700, 600, 500 | (20) 427687421874 " 112, 983, 227, 319, 417 |

EXERCISE VII.

- | | |
|----------------------------|------------------------------|
| (1) 79134678 ÷ 5130, 8216 | (38) 516000000 ÷ 5000, 8700 |
| (2) 71392185 " 7134, 6298 | (39) 754000000 " 9500, 5555 |
| (3) 82356413 " 6900, 7428 | (40) 987123456 " 19, 800426 |
| (4) 91876424 " 7000, 8122 | (41) 971248762 " 97, 800000 |
| (5) 88888888 " 4666, 4440 | (42) 381286613 " 919, 48945 |
| (6) 99999989 " 7777, 7500 | (43) 847689788 " 887776, 83 |
| (7) 66666666 " 5850, 8002 | (44) 458768721 " 47865, 199 |
| (8) 44000000 " 1230, 8120 | (45) 428697124 " 1009, 2898 |
| (9) 40684712 " 8972, 6000 | (46) 778478176 " 919, 38799 |
| (10) 74187699 " 9009, 2005 | (47) 687128763 " 68712876 |
| (11) 98769874 " 8012, 1284 | (48) 999999996 " 88888, 777 |
| (12) 66784764 " 9764, 9287 | (49) 565656565 " 8100, 4009 |
| (13) 10134345 " 1200, 1300 | (50) 726874105 " 9008, 7112 |
| (14) 29225366 " 2370, 2008 | (51) 155867893 " 1200, 1300 |
| (15) 38316189 " 2009, 1009 | (52) 987000812 " 6680, 9812 |
| (16) 47307000 " 1918, 1716 | (53) 847677174 " 124006, 49 |
| (17) 56598978 " 2417, 1500 | (54) 771287005 " 123, 20340 |
| (18) 65689890 " 1600, 1700 | (55) 957962712 " 405, 20019 |
| (19) 74770712 " 1800, 1900 | (56) 267749000 " 5000, 9010 |
| (20) 83861634 " 9000, 8000 | (57) 847624784 " 24 687400 |
| (21) 92952556 " 7000, 6000 | (58) 642789700 " 110, 11888 |
| (22) 11043478 " 9100, 8210 | (59) 567819715 " 12345, 93 |
| (23) 20134390 " 2100, 8700 | (60) 787421700 " 24, 32, 49 |
| (24) 39225212 " 1214, 1009 | (61) 487328714 " 64, 88, 99 |
| (25) 48316113 " 9009, 8008 | (62) 764870000 " 144 27, 72 |
| (26) 57407014 " 6200, 9100 | (63) 849761214 " 119, 31 17 |
| (27) 66598915 " 1280, 9102 | (64) 476870015 " 909, 30, 47 |
| (28) 75689816 " 6712, 9999 | (65) 687420000 " 700, 90, 70 |
| (29) 84760767 " 2872, 9011 | (66) 846217125 " 780 91, 19 |
| (30) 93861618 " 1210, 1200 | (67) 724856760 " 800 80, 90 |
| (31) 12952500 " 4005, 5004 | (68) 121054688 " 4200, 8100 |
| (32) 21043447 " 6006, 7007 | (69) 721846985 " 2120, 2700 |
| (33) 30134387 " 9009, 8008 | (70) 847689789 " 4900, 5600 |
| (34) 49225267 " 6005, 5005 | (71) 894766824 " 7500, 6400 |
| (35) 58315154 " 6600, 5500 | (72) 973887000 " 8100, 5500 |
| (36) 67497095 " 1301, 2000 | (73) 788299200 " 9600, 4400 |
| (37) 56788954 " 2020, 1000 | (74) 644178250 " 8800, 4200 |

MISCELLANEOUS PROBLEMS.

1. Find the sum of $89764 + 34897 + 8496 + 478467 + 639 + 47386 + 99 + 80 + 9 + 864 + 704$.
2. From 917648476942 take 798698749898 and divide the remainder by eleven.
3. Find the difference between 7008 times 62058 and the number that is 17 less than $1,000,000$.
4. The dividend is 1123487849 , and the divisor is 8976 ; find the quotient.
5. How many times can 8946 be subtracted from 1234548 ?
6. Give the Roman numerals for 89 , 47 , 134 , 372 , 549 , 999 .
7. What is the difference between the square of 45005 and the cube of 606 ?
8. A man died this year aged 97 ; in what year was he born?
9. Product $= 2796702433$, multiplicand $= 3456987$; find multiplier.
10. A gross is 12 dozen; how many gross are there in 43200 oranges?
11. How many times 96 will make 2000 times 48 ?
12. Find the value of $864 + 3972 \times 68 + 534 \times 6079 + 371 - 872 - 984 + 87$.
13. How many times does a clock strike in 24 hours?
14. Quotient $= 1463171$, remainder $= 79$, divisor $= 86$; find dividend.
15. Add together the sum, difference, product and quotient of 367625 and 625 .
16. Dividend $= 96895965$, quotient $= 1957494$, remainder $= 120$; find divisor.

17. Multiply the sum of 847367, 298473, 26384, 857-684, 384729 by 1340; from the product subtract 7638584 and divide the remainder by 479.
18. 1760 yards make a mile. How many miles in 26400 yards?
19. Divide 763845679 by 67, 849, 70609, 85936.
20. In what year will a boy, who is seven years old now, be 21?
21. There are 36 inches in a yard, and 66 yards in a chain. How many inches in a chain?
22. If 2 men do a work in 90 days, how long would it take 12 men to do it?
23. Divide the continued product of 37, 64, 81 and 147 by 56.
24. How long is it since the battle of Waterloo, which was fought in 1815?
25. Two factors are 57682 and 8093. Find their product.
26. Multiply 94836 by 768, and divide the product by 9216.
27. How much is 72896 less than 87231?
28. What number multiplied by 52 will give the same answer as 338 multiplied by 176?
29. How often may 236 be taken from 4302?
30. Subtrahend = 35684, difference = 1907, what is the minuend?
31. Product of two numbers = 329406, one of them is 713, find the other.
32. Find the value of $89794 + 7008 \times 17 - 98765$.
33. Dividend = 8974469504. Quotient = 128128, what is the divisor.

34. How many more legs have 26 horses and 17 dogs than 13 hens and 29 ducks?
35. Twice the difference is 78336, the subtrahend is 10695; find the minuend.
36. The divisor and quotient are each 678954 find the dividend.
37. Find the smallest number that must be taken from 496784879 so that the remainder may exactly contain 9019.
38. A man bought a farm for \$10,000, and gave for it 67 horses at \$108 each, and the rest in money. How much money did he give?
39. If 27 yards of cloth cost \$3, how many yards can be bought for \$2?
40. A boy sold a dozen and two trout for 5 cents apiece, 18 rock bass for 1 cent apiece, and half a score of black bass for 8 cents apiece; how much did he get for all his fish?
41. Give Arabic numerals for LXXIV, DCCCLXXXIX, CMXCVIII, CCXLIX, CXVIII, and Roman numerals for 27, 39, 43, 56, 71, 96, 475, 888.
42. The divisor and the quotient are each 15625, and the remainder is the greatest possible; find the dividend.
43. Add all the numbers ending in 5, 7 or 9, from 20 to 50; multiply this sum by 19, and divide the product by 29.
44. There are 5280 feet in a mile. How many feet are there in 1015 miles?
45. How many years since the discovery of America, by Columbus, in 1492?

46. How many pairs of gloves are there in 796 dozen single gloves?
47. Take 91080 from the product of 50416 and 207.
48. Divisor = 25; dividend = 4276; quotient = 171; find the remainder.
49. Divide 32456789 by 84, first by long division and then by short division, and show that the answers are the same.
50. By how many does 98745 exceed 29?
51. How many pence are there in 7484 shillings? There are 12 pence in 1 shilling.
52. How many dozen apples are there in 1728?
53. Find the difference between one hundred and fifty thousand and nineteen, und DCXCIX.
54. What is the sum of 6 times $(48 + 56 - 93 + 307 - 59)$ and 4 times $(48 + 56 - 93 + 304 - 59)$.
55. Divide 8932×684 by 8932×4 .
56. Multiply 763804 by 389, and 708469 by 983; divide the difference of these products by 479.
57. A girl 8 years old in 1882 will be 19 in what year?
58. There are two numbers, the less is 514 and the other exceeds it by 268; find their sum.
59. Wellington was born in 1769, and lived to the age of 83, in what year did he die?
60. Find the number, the half of which is 2 gross, 9 score and 8 dozen.
61. The dividend 9281, quotient 17, remainder 373; find the divisor.

DEFINITIONS.

1. ARITHMETIC is the *science* of numbers and the *art* of using them.
2. A UNIT is a single thing regarded as a whole.
3. A NUMBER is a single unit or a collection of two or more units.
4. NOTATION is the art of writing numbers.
5. NUMERATION is the art of reading numbers.
6. ADDITION is the process of finding the sum of two or more numbers.
7. The ADDENDS are the numbers to be added together.
8. The SUM is the number found by adding two or more numbers together.
9. The sign $+$ is called *plus*, and when written between numbers means that they are to be added together.
10. The sign $=$ is called the sign of *equality*, and when written between two quantities means that they are equal to one another.
11. SUBTRACTION is the process of finding the difference between two numbers.
12. THE MINUEND is the number from which another number is to be subtracted.
13. THE SUBTRAHEND is the number to be subtracted.
14. THE DIFFERENCE is the number found by subtracting one quantity from another.
15. The sign $-$ is called *minus*, and when written between two numbers means that the one following it is to be taken from the one preceding it.
16. MULTIPLICATION is a short method of finding the sum of any given number repeated as often as there are units in another.
17. THE MULTIPLICAND is the number to be multiplied.
18. THE MULTIPLIER is the number which shows how often the multiplicand is to be repeated.
19. THE PRODUCT is the number found by multiplying two or more numbers together.
20. The sign $\times$ is called the sign of multiplication, and when written between two numbers means that they are to be multiplied together.
21. DIVISION is the process of finding how often one number is contained in another.
22. THE DIVIDEND is the number to be divided.
23. THE DIVISOR is the number by which you divide.
24. THE QUOTIENT is the number found by dividing one number by another.
25. The sign $\div$ is called the sign of division and when written between two numbers means that the first is to be divided by the second.

HOW TO TEACH MULTIPLICATION AND DIVISION.

If the pupil has learned addition properly he will experience little difficulty in learning multiplication or division. Suppose, for instance, a pupil is asked to learn the sixth line of the multiplication table. He has, while in addition, learned to add by sixes, thus, 6, 12, 18, 24, 30, etc. Now, he has simply to change the mode of expression and say: Once 6 is 6; twice 6 are 12; 3 times 6 are 18; 4 times 6 are 24; 5 times 6 are 30, etc.

An interesting variation may be adopted by placing the numbers 6, 12, 18, 24, 30, 36, 42, 48, 54 on the blackboard or referring to them in the table, and using 6 as one of the factors ask the pupils to break up each of the numbers. For example, when the teacher points to 24 the pupils cry out 6 times 4; when to 48, 6 times 8; when to 42, 6 times 7, etc.

Taking the same numbers proceed to division. Point to any of them and ask how many sixes are in it. For instance how many sixes are in 24? in 48? in 42? etc.

Next write on blackboard or refer to them in table the numbers 1 greater than those given above, viz.: 7, 13, 19, 25, 31, 37, 43, 49, 55. Point now to any of them, say to 25, and ask how many sixes are in it; the pupils will at once perceive that there are 4 and 1 of a remainder. How many sixes in 49? 8 and 1 remains. How many in 43? 7 and 1 remains, etc. Proceed similarly with the numbers 2 greater, 3 greater, etc.

To save the time and labor necessary to write the numbers on the blackboard "The Improved Division Table" has been prepared on the principles mentioned above, the numbers being written vertically instead of horizontally. Suppose the pupil to be learning by the table to divide by 6. The first column gives the numbers into which 6 goes evenly, the second those whose remainders are 1, the third those whose remainders are 2, and so on. 6 goes into 13 the same number of times that it goes into 12 but 13 being one greater than 12 there will be a remainder of 1. 6 into 54 goes 9 times, into 53, which is 1 less, it will go 8 times and leave 5. 5 is the greatest remainder that the divisor 6 can have. Give the numbers into which 6 goes evenly; those which, if divided by 6, the remainder will be 1, &c. What number will 6 go into 7 times and leave 4? &c. 6 will go 8 times and leave 2, into what number? &c. These and scores of other variations when pointed out by the "live" teacher make this table very attractive to the learner. It can be used with equal advantage in teaching multiplication.

THE MULTIPLICATION TABLE

2		3		4		5		6	
times		times		times		times		times	
1 are	2	1 are	3	1 are	4	1 are	5	1 are	6
2 ..	4	2 ..	6	2 ..	8	2 ..	10	2 ..	12
3 ..	6	3 ..	9	3 ..	12	3 ..	15	3 ..	18
4 ..	8	4 ..	12	4 ..	16	4 ..	20	4 ..	24
5 ..	10	5 ..	15	5 ..	20	5 ..	25	5 ..	30
6 ..	12	6 ..	18	6 ..	24	6 ..	30	6 ..	36
7 ..	14	7 ..	21	7 ..	28	7 ..	35	7 ..	42
8 ..	16	8 ..	24	8 ..	32	8 ..	40	8 ..	48
9 ..	18	9 ..	27	9 ..	36	9 ..	45	9 ..	54
10 ..	20	10 ..	30	10 ..	40	10 ..	50	10 ..	60
11 ..	22	11 ..	33	11 ..	44	11 ..	55	11 ..	66
12 ..	24	12 ..	36	12 ..	48	12 ..	60	12 ..	72

7 times	8 times	9 times	10 times	11 times	12 times
1 are 7	1 are 8	1 are 9	1 are 10	1 are 11	1 are 12
2 .. 14	2 .. 16	2 .. 18	2 .. 20	2 .. 22	2 .. 24
3 .. 21	3 .. 24	3 .. 27	3 .. 30	3 .. 33	3 .. 36
4 .. 28	4 .. 32	4 .. 36	4 .. 40	4 .. 44	4 .. 48
5 .. 35	5 .. 40	5 .. 45	5 .. 50	5 .. 55	5 .. 60
6 .. 42	6 .. 48	6 .. 54	6 .. 60	6 .. 66	6 .. 72
7 .. 49	7 .. 56	7 .. 63	7 .. 70	7 .. 77	7 .. 84
8 .. 56	8 .. 64	8 .. 72	8 .. 80	8 .. 88	8 .. 96
9 .. 63	9 .. 72	9 .. 81	9 .. 90	9 .. 99	9 .. 108
10 .. 70	10 .. 80	10 .. 90	10 .. 100	10 .. 110	10 .. 120
11 .. 77	11 .. 88	11 .. 99	11 .. 110	11 .. 121	11 .. 132
12 .. 84	12 .. 96	12 .. 108	12 .. 120	12 .. 132	12 .. 144

ROMAN NUMERALS

I.	II	III	IV	V	VI	VII	VIII	IX	X.
1	2	3	4	5	6	7	8	9	10
XI.	XII.	XIII.	XIV	XV	XVI.	XVII.	XVIII.	XIX.	XX.
11	12	13	14	15	16	17	18	19	20
XXI.	XXII.	XXIII.	XXIV.	XXV.	XXVI.	XXVII.	XXVIII.	XXIX.	XXX.
21	22	23	24	25	26	27	28	29	30
XXXI.	XXXII.	XXXIII.	XXXIV.	XXXV.	XXXVI.	XXXVII.	XXXVIII.	XXXIX.	XXXX.
31	32	33	34	35	36	37	38	39	40
XXXXI.	XXXXII.	XXXXIII.	XXXXIV.	XXXXV.	XXXXVI.	XXXXVII.	XXXXVIII.	XXXXIX.	XXXXX.
41	42	43	44	45	46	47	48	49	50
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
51	52	53	54	55	56	57	58	59	60
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
61	62	63	64	65	66	67	68	69	70
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
71	72	73	74	75	76	77	78	79	80
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
81	82	83	84	85	86	87	88	89	90
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
91	92	93	94	95	96	97	98	99	100
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
101	102	103	104	105	106	107	108	109	110
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
111	112	113	114	115	116	117	118	119	120
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
121	122	123	124	125	126	127	128	129	130
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
131	132	133	134	135	136	137	138	139	140
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
141	142	143	144	145	146	147	148	149	150
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
151	152	153	154	155	156	157	158	159	160
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
161	162	163	164	165	166	167	168	169	170
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
171	172	173	174	175	176	177	178	179	180
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
181	182	183	184	185	186	187	188	189	190
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
191	192	193	194	195	196	197	198	199	200
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
201	202	203	204	205	206	207	208	209	210
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
211	212	213	214	215	216	217	218	219	220
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
221	222	223	224	225	226	227	228	229	230
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
231	232	233	234	235	236	237	238	239	240
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
241	242	243	244	245	246	247	248	249	250
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
251	252	253	254	255	256	257	258	259	260
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
261	262	263	264	265	266	267	268	269	270
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
271	272	273	274	275	276	277	278	279	280
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
281	282	283	284	285	286	287	288	289	290
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
291	292	293	294	295	296	297	298	299	300
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
301	302	303	304	305	306	307	308	309	310
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
311	312	313	314	315	316	317	318	319	320
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
321	322	323	324	325	326	327	328	329	330
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
331	332	333	334	335	336	337	338	339	340
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
341	342	343	344	345	346	347	348	349	350
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
351	352	353	354	355	356	357	358	359	360
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
361	362	363	364	365	366	367	368	369	370
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
371	372	373	374	375	376	377	378	379	380
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
381	382	383	384	385	386	387	388	389	390
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
391	392	393	394	395	396	397	398	399	400
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
401	402	403	404	405	406	407	408	409	410
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
411	412	413	414	415	416	417	418	419	420
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
421	422	423	424	425	426	427	428	429	430
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
431	432	433	434	435	436	437	438	439	440
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
441	442	443	444	445	446	447	448	449	450
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
451	452	453	454	455	456	457	458	459	460
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
461	462	463	464	465	466	467	468	469	470
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
471	472	473	474	475	476	477	478	479	480
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
481	482	483	484	485	486	487	488	489	490
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
491	492	493	494	495	496	497	498	499	500
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
501	502	503	504	505	506	507	508	509	510
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
511	512	513	514	515	516	517	518	519	520
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
521	522	523	524	525	526	527	528	529	530
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
531	532	533	534	535	536	537	538	539	540
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
541	542	543	544	545	546	547	548	549	550
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
551	552	553	554	555	556	557	558	559	560
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
561	562	563	564	565	566	567	568	569	570
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
571	572	573	574	575	576	577	578	579	580
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
581	582	583	584	585	586	587	588	589	590
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
591	592	593	594	595	596	597	598	599	600
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
601	602	603	604	605	606	607	608	609	610
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
611	612	613	614	615	616	617	618	619	620
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
621	622	623	624	625	626	627	628	629	630
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
631	632	633	634	635	636	637	638	639	640
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
641	642	643	644	645	646	647	648	649	650
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
651	652	653	654	655	656	657	658	659	660
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
661	662	663	664	665	666	667	668	669	670
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
671	672	673	674	675	676	677	678	679	680
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
681	682	683	684	685	686	687	688	689	690
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
691	692	693	694	695	696	697	698	699	700
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
701	702	703	704	705	706	707	708	709	710
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
711	712	713	714	715	716	717	718	719	720
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
721	722	723	724	725	726	727	728	729	730
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
731	732	733	734	735	736	737	738	739	740
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
741	742	743	744	745	746	747	748	749	750
XXXXXI.	XXXXXII.	XXXXXIII.	XXXXXIV.	XXXXXV.	XXXXXVI.	XXXXXVII.	XXXXXVIII.	XXXXXIX.	XXXXXX.
751	752	753							

THE IMPROVED DIVISION TABLE.

2 into		3. into			4 into				5 into					
2	3	3	4	5	4	5	6	7	5	6	7	8	9	Once
4	5	6	7	8	8	9	10	11	10	11	12	13	14	Twice
6	7	9	10	11	12	13	14	15	15	16	17	18	19	3 times
8	9	12	13	14	16	17	18	19	20	21	22	23	24	4 times
10	11	15	16	17	20	21	22	23	25	26	27	28	29	5 times
12	13	18	19	20	24	25	26	27	30	31	32	33	34	6 times
14	15	21	22	23	28	29	30	31	35	36	37	38	39	7 times
16	17	24	25	26	32	33	34	35	40	41	42	43	44	8 times
18	19	27	28	29	36	37	38	39	45	46	47	48	49	9 times
0	1	0	1	2	0	1	2	3	0	1	2	3	4	Remains

7 into								8 into								
7	8	9	10	11	12	13	14	8	9	10	11	12	13	14	15	Once
14	15	16	17	18	19	20	21	16	17	18	19	20	21	22	23	Twice
21	22	23	24	25	26	27	28	24	25	26	27	28	29	30	31	3 times
28	29	30	31	32	33	34	35	32	33	34	35	36	37	38	39	4 times
35	36	37	38	39	40	41	42	40	41	42	43	44	45	46	47	5 times
42	43	44	45	46	47	48	49	48	49	50	51	52	53	54	55	6 times
49	50	51	52	53	54	55	56	56	57	58	59	60	61	62	63	7 times
56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	8 times
63	64	65	66	67	68	69	70	72	73	74	75	76	77	78	79	9 times
0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	Remains

6 into							9 into										
6	7	8	9	10	11	12	9	10	11	12	13	14	15	16	17	18	Once
12	13	14	15	16	17	18	18	19	20	21	22	23	24	25	26	27	Twice
18	19	20	21	22	23	24	27	28	29	30	31	32	33	34	35	36	3 times
24	25	26	27	28	29	30	36	37	38	39	40	41	42	43	44	45	4 times
30	31	32	33	34	35	36	45	46	47	48	49	50	51	52	53	54	5 times
36	37	38	39	40	41	42	54	55	56	57	58	59	60	61	62	63	6 times
42	43	44	45	46	47	48	63	64	65	66	67	68	69	70	71	72	7 times
48	49	50	51	52	53	54	72	73	74	75	76	77	78	79	80	81	8 times
54	55	56	57	58	59	60	81	82	83	84	85	86	87	88	89	90	9 times
0	1	2	3	4	5	6	0	1	2	3	4	5	6	7	8	9	Remains